

Media Processing Center

API Reference

Issue 01
Date 2026-02-25



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1 Before You Start

Media Processing Center (MPC) transcodes your media files online, inexpensively, efficiently, and at any scale. It converts your media files stored in Object Storage Service (OBS) into the formats you need for playback on devices like smartphones, PCs, and TVs. It also provides functions such as frame capture, watermarks, and video encryption to meet a wide range of requirements.

This document describes how to use application programming interfaces (APIs) to perform operations on MPC, such as creating transcoding templates, transcoding tasks, and snapshot tasks. For details about all supported operations, see [API Overview](#).

Before calling MPC APIs, ensure that you are familiar with MPC concepts. For details, see [Service Overview](#).

MPC provides Representational State Transfer (REST) APIs, allowing you to [call APIs](#) using HTTPS.

Additionally, MPC provides you with [software development kits \(SDKs\)](#) in multiple programming languages.

Before calling MPC APIs, note that:

- MPC does not store media files. It processes media files stored in OBS buckets. Therefore, before calling the video transcoding, packaging, animated GIF, and frame capture APIs, you need to upload media files to an OBS bucket and authorize MPC to access the bucket. For details, see [Uploading Media Files](#).
- To learn about the status of media files processed by MPC in real time, you can configure event notifications on the MPC console before calling APIs. For details, see [Event Notifications](#).

Endpoints

An endpoint is the request address for calling an API. Obtain the service endpoint from [Regions and Endpoints](#).

Constraints

- API request throttling is configured for MPC to prevent service interruption caused by repeated API calls in a short period.

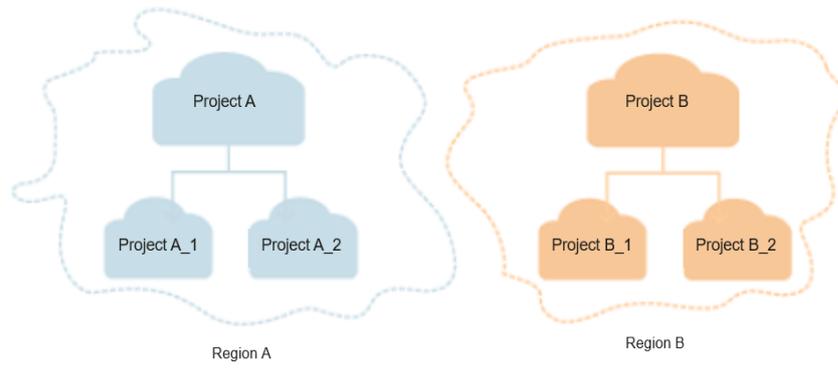
Request limit for transcoding:

- A single tenant: 100 requests/minute
- Overall: 1,000 requests/minute
- IAM and MPC APIs must always be called within the same region.
- You cannot process media files across regions.
- For the integer data type in request parameters, enter decimals. Only the digits on the left of the decimal point will be used.
- For more constraints, see the description of each API.

Concepts

- Account
An account is created upon successful registration with the cloud platform. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. An account is a payment entity. Accounts should not be used directly to perform routine management. For security purposes, create IAM users and grant them permissions for routine management.
- IAM user
An IAM user is created using an account to use cloud services. Each IAM user has its own identity credentials (password and access keys).
An IAM user can view the account ID and user ID on the My Credentials page of the console. The account, username, and password will be required for API authentication.
- Region
A region is a physical location where cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, but AZs in different regions cannot. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.
- AZ
An AZ contains one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Compute, networking, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ, high-availability systems.
- Project
Projects group and isolate resources (including compute, storage, and networking resources) across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. For more refined access control, create subprojects under a project and purchase resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

Figure 1-1 Project isolating model



2 API Overview

The following tables list the MPC APIs. Before calling an MPC API, you need to obtain a user token. The obtained token can then be used to authenticate the calling of other APIs. For details about how to call an MPC API, see [Application Examples](#).

Custom Transcoding Templates

A transcoding template is used to define transcoded video information. Before transcoding a video, you need to create a transcoding template.

API	Description
POST /v1/{project_id}/template/transcodings	Creating a Transcoding Template
DELETE /v1/{project_id}/template/transcodings{?temp_id}	Deleting a Transcoding Template
PUT /v1/{project_id}/template/transcodings	Modifying a Transcoding Template
GET /v1/{project_id}/template/transcodings{?temp_id}	Querying Transcoding Templates

Custom Transcoding Template Groups

A transcoding template group defines the output file information. A custom template group can contain a maximum of six output configurations.

API	Description
POST /v1/{project_id}/template_group/transcodings	Creating a Transcoding Template Group
GET /v1/{project_id}/template_group/transcodings{?temp_id}	Querying Transcoding Template Groups

API	Description
PUT /v1/{project_id}/template_group/transcodings{?temp_id}	Updating a Transcoding Template Group
DELETE /v1/{project_id}/template_group/transcodings	Deleting a Transcoding Template Group

Watermarking

Call the watermark template APIs to deliver the watermark template and add watermarks to videos during transcoding.

API	Description
POST /v1/{project_id}/template/watermark	Creating a Watermark Template
PUT /v1/{project_id}/template/watermark	Modifying a Watermark Template
DELETE /v1/{project_id}/template/watermark{?template_id}	Deleting a Watermark Template
GET /v1/{project_id}/template/watermark{?template_id,page,size}	Querying Watermark Templates

Media Transcoding

API	Description
POST /v1/{project_id}/transcodings	Creating a Transcoding Task
DELETE /v1/{project_id}/transcodings{?task_id}	Canceling a Transcoding Task
GET /v1/{project_id}/transcodings{?task_id,start_time,end_time,status,page,size}	Querying Transcoding Tasks
DELETE /v1/{project_id}/transcodings/task	Deleting Transcoding Task Records
GET /v1/{project_id}/transcodings/summaries	Querying VOD Overview

Packaging

API	Description
POST /v1/{project_id}/remux	Creating a Packaging Task
PUT /v1/{project_id}/remux	Retrying a Packaging Task
GET /v1/{project_id}/remux{?task_id,start_time,end_time,status,page,size}	Querying Packaging Tasks
DELETE /v1/{project_id}/remux{?task_id}	Canceling a Packaging Task
DELETE /v1/{project_id}/remux/task	Deleting Packaging Task Records

Animated GIF

API	Description
POST /v1/{project_id}/animated-graphics	Creating an Animated GIF Task
GET /v1/{project_id}/animated-graphics{?task_id,start_time,end_time,status,page,size}	Querying Animated GIF Tasks
DELETE /v1/{project_id}/animated-graphics{?task_id}	Canceling an Animated GIF Task

Video Parsing

API	Description
POST /v1/{project_id}/extract-metadata	Creating a Video Parsing Task
GET /v1/{project_id}/template/extract-metadata{?task_id,start_time,end_time,status,page,size}	Querying Video Parsing Tasks
DELETE /v1/{project_id}/extract-metadata{?task_id}	Canceling a Video Parsing Task

Snapshot Capturing

API	Description
POST /v1/{project_id}/thumbnails	Creating a Snapshot Task
GET /v1/{project_id}/thumbnails{?task_id,start_time,end_time,status,page,size}	Querying Snapshot Tasks
DELETE /v1/{project_id}/thumbnails{?task_id}	Canceling a Snapshot Task

Authorization and Configuration

API	Description
PUT /v1/{project_id}/notification	Configuring Event Notifications on the Transcoding Server
GET /v1/{project_id}/notification	Querying Event Notifications on the Transcoding Server
GET /v1/{project_id}/notification/event	Querying All Events on the Transcoding Server
GET /v1/{project_id}/buckets	Querying the Bucket List
PUT /v1/{project_id}/authority	Granting or Canceling Bucket Authorization
GET /v1.0-ext/{project_id}/objects	Querying Objects in a Bucket
POST /v1/{project_id}/agencies	Requesting an OBS Authorization Task
GET /v1/{project_id}/agencies	Querying the OBS Authorization Task Status

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for [creating an IAM user](#) as an example to demonstrate how to call an API.

Request URI

A request URI is in the following format:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

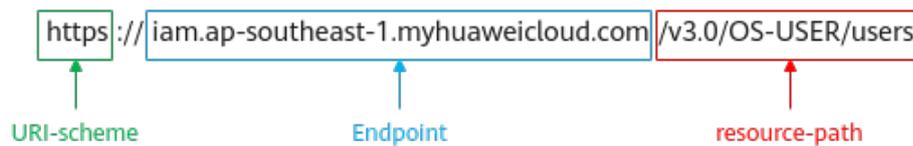
Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints . For example, the endpoint of IAM in region CN-Hong Kong is iam.ap-southeast-1.myhuaweicloud.com .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens .
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, ?limit=10 indicates that a maximum of 10 data records will be displayed.

IAM is a global service. You can create an IAM user using the endpoint of IAM in any region. For example, to create an IAM user in the **CN-Hong Kong** region, obtain the endpoint of IAM (**iam.ap-southeast-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3.0/OS-USER/users**) in the URI of the API for **creating an IAM user**. Then construct the URI as follows:

`https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users`

Figure 3-1 Example URI



NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server.

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API for **creating an IAM user**, the request method is **POST**. An example request is as follows:

`POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users`

Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for https is 443 .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in Obtaining a Project ID .	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4

Parameter	Description	Mandatory	Example Value
X-Auth-Token	<p>Specifies the user token. It is a response to the API for obtaining a user token (This is the only API that does not require authentication).</p> <p>After the request is processed, the value of X-Subject-Token in the response header is the token value.</p>	<p>No</p> <p>This field is mandatory for token authentication.</p>	<p>The following is part of an example token:</p> <p>MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ</p>

 **NOTE**

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

For more details, see "Authentication Using AK/SK" in [Authentication](#).

The following shows an example request of the API for [creating an IAM user](#) when AK/SK authentication is used:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
```

(Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), which is specified by **Content-Type** in the request header. It is used to transfer content other than the request header. If the request body contains full-width characters, these characters must be coded in UTF-8.

The request body varies depending on APIs. Certain APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

The following shows an example request (a request body included) of the API for [creating an IAM user](#). You can learn about request parameters and related description from this example. The bold parameters need to be replaced for a real request.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- *********: login password of an IAM user

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
```

```
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,  
Signature=*****  
  
{  
  "user": {  
    "domain_id": "accountid",  
    "name": "username",  
    "password": "*****",  
    "email": "email",  
    "description": "IAM User Description"  
  }  
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.
- Token authentication: Requests are authenticated using tokens.

AK/SK Authentication

NOTE

- AK/SK authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token authentication is recommended.
- An AK/SK pair can either be permanent or temporary. If it is temporary, the **X-Security-Token** field must be included in the request header. The value is the security token of the temporary AK/SK pair.
- API Gateway checks the time format and compares the request time with the time when API Gateway received the request. If the time difference exceeds 15 minutes, API Gateway will reject the request. So, the local time on the client must be synchronized with the clock server to avoid a large offset in the value of **X-Sdk-Date** in the request header.

In AK/SK authentication, an AK/SK pair is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key, which is used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK authentication, you can use an AK/SK pair to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

NOTE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

Token Authentication

NOTE

- A token remains valid for 24 hours after it is generated. You can cache a token and reuse it for authentication instead of generating a new one each time.
- Before using a token, ensure that it has sufficient time remaining before expiration. Using a near-expiry token may cause API call failures.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the [Obtaining a User Token](#) API.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username", // IAM user name
          "password": SADMIN_PASS, // IAM user password. You are advised to store it in ciphertext in
the configuration file or an environment variable and decrypt it when needed to ensure security.
          "domain": {
            "name": "domainname" // Name of the account that the IAM user belongs to
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxx" // Project name
      }
    }
  }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFGH....**, **X-Auth-Token: ABCDEFGH....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFGH....
```

3.3 Response

Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see [Status Codes](#).

For example, if status code **201** is returned for calling the API used to **create an IAM user**, the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-2 shows the response header for the API used to **create an IAM user**.

NOTE

For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

Figure 3-2 Header fields of the response to the request for creating an IAM user

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_██████████_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```

(Optional) Response Body

The body of a response is often returned in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following shows part of the response body for the API used to **create an IAM user**.

```
{
  "user": {
    "id": "c131886aec...",
    "name": "IAMUser",
    "description": "IAM User Description",
    "areacode": "",
    "phone": "",
    "email": "***@**.com",
    "status": null,
    "enabled": true,
    "pwd_status": false,
    "access_mode": "default",
    "is_domain_owner": false,
    "xuser_id": "",
    "xuser_type": "",
    "password_expires_at": null,
    "create_time": "2024-05-21T09:03:41.000000",
    "domain_id": "d78cbac1.....",
    "xdomain_id": "30086000.....",
    "xdomain_type": ""
  }
}
```

```
"default_project_id": null
  }
}
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{
  "error_msg": "The request message format is invalid.",
  "error_code": "IMG.0001"
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 Application Examples

4.1 Example 1: Create a Transcoding Template

Scenario

If you need to use a custom transcoding template for audio and video transcoding, create a transcoding template before submitting a transcoding task.

Prerequisites

- You have obtained the project ID of the region where the transcoding template is to be created. For details, see [Obtaining a Project ID](#).
- You have determined the region where the transcoding template to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).

Overall Process

- [Obtaining a User Token](#)
- [Creating a Transcoding Template](#)

Involved APIs

To use token-based authentication, [obtain a user token](#) and add **X-Auth-Token** to the request header of the service API when making an API request.

Procedure

Step 1 [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

```
POST https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
  "auth": {
```

```

"identity": {
  "methods": [
    "password"
  ],
  "password": {
    "user": {
      "name": "*****", //Username
      "password": "*****", //Login password
      "domain": {
        "name": "domainname" //Name of the account to which the user belongs
      }
    }
  }
},
"scope": {
  "project": {
    "name": "*****" //Project name
  }
}
}

```

As shown in [Figure 4-1](#), information in the red box indicates the user token.

Figure 4-1 Obtaining a user token

```

cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains;
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-lam-trace-id → to:
x-request-id → fo:
x-subject-token
x-ssr-protection → 1; mode=block

```

Step 2 Select the POST request method and enter the request URI.

```
https://{endpoint}/v1/{project_id}/template/transcodings
```

mpc.cn-north-4.myhuaweicloud.com is the endpoint of MPC. You can obtain the endpoint from [Regions and Endpoints](#).

NOTE

The region where an IAM API is called must be the same as the region where an MPC API is called. For example, the user token obtained when you call an IAM API in the **CN North-Beijing4** region can only be used to authenticate the requests for calling MPC APIs in the **CN North-Beijing4** region.

Step 3 In the request header, add **X-Auth-Token** and set its value to be the token obtained in [Step 1](#).

Step 4 Pass the following parameters to the request body:

```

{
  "template_name": "MP4_H.264_1920x1080_6000_HEAAC",
  "video": {

```

```
{
  "codec":1,
  "bitrate":6000,
  "profile":3,
  "level":15,
  "preset":3,
  "ref_frames_count":4,
  "max_iframes_interval":5,
  "bframes_count":4,
  "frame_rate":1,
  "width":1920,
  "height":1080,
  "aspect_ratio":0
},
"audio":{
  "codec":1,
  "sample_rate":4,
  "bitrate":128,
  "channels":2
},
"common":{
  "PVC":0,
  "hls_interval":5,
  "dash_interval":5,
  "pack_type":1
}
}
```

If the request succeeds, the transcoding template ID is returned. The status code is 201 Created.

```
{
  "template_id":1001
}
```

If the request fails, the following error code and error description are returned:

```
{
  "error_code": "MPC.100101",
  "error_msg": "template error, it's name MP4_H.264_1920x1080_6000_HEAAC is same with template 274764."
}
```

----End

4.2 Example 2: Submit a Video Transcoding Task

Scenario

If you need to transcode a video file stored in an OBS bucket and add an image watermark, you can call an MPC API to transcode the video file.

This section describes how to submit a video transcoding task by invoking an API.

Constraints

Cross-region transcoding is not supported. For example, MPC in the **CN North-Beijing1** region cannot transcode video files stored in an OBS bucket in the **CN North-Beijing4** region.

Prerequisites

- You have obtained the project ID of the region where the transcoding task is to be created. For details, see [Obtaining a Project ID](#).

- You have determined the region where the transcoding task to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).
- You have stored the video file to be transcoded in an OBS bucket. If you have not, call the API for [uploading an object](#) to upload the file.
- You have created an OBS bucket where transcoding outputs will be stored. If you have not, call the API for [creating a bucket](#).

Overall Process

- [Obtain a User Token](#)
- [Create a Transcoding Template](#)
- [Create a Watermark Template](#)
- [Submit the Transcoding Task](#)
- [Query the Task Status](#)

Procedure

Step 1 [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

```
POST https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "*****", //Username
          "password": "*****", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "*****" //Project name
      }
    }
  }
}
```

As shown in [Figure 4-2](#), information in the red box indicates the user token.

Figure 4-2 Obtaining a user token

```
cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains;
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-lam-trace-id → to: [redacted]
x-request-id → [redacted]
x-subject-token → [redacted]
x-xss-protection → 1; mode=block
```

Step 2 Create a video transcoding template and obtain the transcoding template ID. For details about how to call the API for creating a transcoding template, see [Example 1: Create a Transcoding Template](#).

Step 3 Create a watermark template.

1. Select the POST request method and enter the request URI.
`https://{endpoint}/v1/{project_id}/template/watermark`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. Specify the following parameters in the request body:

```
{
  "template_name": "watermark_1920*1080_10*10_ BottomLeft",
  "type": "Image",
  "image_process": "Grayed",
  "width": "1920",
  "height": "1080",
  "dx": "10",
  "dy": "10",
  "referpos": "BottomLeft",
  "timeline_start": "6",
  "timeline_duration": "8"
}
```

4. If the request succeeds, the watermark template ID is returned.

```
{
  "template_id": 242
}
```

Step 4 Submit the transcoding task.

1. Select the POST request method and enter the request URI.
`https://{endpoint}/v1/{project_id}/transcodings`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. Specify the following parameters in the request body:

```
{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/input/sample.MP4"
  },
  "output": {
```

```
"bucket": "example-bucket",
"location": "region01",
"object": "/mpc/output/"
},
"trans_template_id": [1002],
"watermarks": [
  {
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "meipai.jpg"
    },
    "template_id": 242
  }
],
"priority": "9",
"audit": {
  "position": 2,
  "index": 2
}
}
```

4. If the request succeeds, the transcoding task ID is returned.

```
{
  "task_id": 100211
}
```

Step 5 Query the task status.

1. Select the GET request method and enter the request URI.
`https://{endpoint}/v1/{project_id}/transcodings?task_id=100211`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. If the request succeeds, details about the transcoding task are returned.

----End

4.3 Example 3: Submit a Video Snapshot Task

Scenario

You can set snapshot parameters when submitting a video transcoding task for taking snapshots during transcoding. If you only want to take snapshots from a video file without transcoding, you can call the API for taking snapshots.

This section describes how to submit a video snapshot task by invoking an API.

Constraints

Cross-region transcoding is not supported. For example, MPC in the **CN North-Beijing1** region cannot transcode video files stored in an OBS bucket in the **CN North-Beijing4** region.

Prerequisites

- You have obtained the project ID of the region where the snapshot task is to be created. For details, see [Obtaining a Project ID](#).
- You have determined the region where the snapshot capturing task to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).

- You have stored the video file for which snapshots will be captured in an OBS bucket. If you have not, call the API for [uploading an object](#) to upload the file.
- You have created an OBS bucket where snapshots will be stored. If you have not, call the API for [creating a bucket](#).

Overall Process

- [Obtain a User Token](#)
- [Create a Snapshot Task](#)
- [Query the Task Status](#)

Procedure

Step 1 [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

POST <https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens>
Content-Type: application/json

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "*****", //Username
          "password": "*****", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "*****" //Project name
      }
    }
  }
}
```

As shown in [Figure 4-3](#), information in the red box indicates the user token.

Figure 4-3 Obtaining a user token

```

cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains;
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → to: [redacted]
x-request-id → [redacted]
x-subject-token → [redacted]
x-ssr-protection → 1; mode=block

```

Step 2 Create a snapshot task.

1. Select the POST request method and enter the request URI.
https://{endpoint}/v1/{project_id}/thumbnails
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. Specify the following parameters in the request body:

```

{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/input/sample.MP4"
  },
  "output": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/output/"
  },
  "tar": 1,
  "thumbnail_para": {
    "type": "DOTS",
    "dots": [2,4,6,8,10],
    "format": 0,
    "aspect_ratio": 1,
    "max_length": 480
  }
}

```

4. If the request succeeds, the snapshot task ID is returned.

```

{
  "task_id": "2081"
}

```

Step 3 Query the task status.

1. Select the GET request method and enter the request URI.
https://{endpoint}/v1/{project_id}/thumbnails?task_id=2081
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. If the request succeeds, details about the snapshot task are returned.

----End

5 Transcoding Template APIs

5.1 Creating a Transcoding Template

Function

This API is used to create a transcoding template.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTemplate:create	Write	-	-	-	-

URI

POST /v1/{project_id}/template/transcodings

Table 5-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 5-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 5-3 Request body parameters

Parameter	Mandatory	Type	Description
template_name	Yes	String	Name of a transcoding template
video	No	Video object	Video parameters
audio	No	Audio object	Audio parameters
common	Yes	Common object	Common parameters

Table 5-4 Video

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
bitrate	No	Integer	<p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 30,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to 0, the average output bitrate is an adaptive value.</p>

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3. The default value is 0, indicating that the average output bitrate is adaptive to codec.</p> <ul style="list-style-type: none"> • When codec is set to 1, profile is set to 3. • When codec is set to 2, profile is set to 4. <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN
level	No	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 60.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>

Parameter	Mandatory	Type	Description
width	No	Integer	<p>Video width</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 4,096. • H.265: The value is 0 or a multiple of 2 from 320 to 4,096. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>
height	No	Integer	<p>Video height</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 2,880. • H.265: The value is 0 or a multiple of 2 from 96 to 2,880. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>
black_cut	No	Integer	<p>Whether to enable black bar removal.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes
stream_name	No	String	Stream name

Table 5-5 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Mandatory	Type	Description
sample_rate	No	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Yes	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 5-6 Common

Parameter	Mandatory	Type	Description
PVC	No	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	No	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	No	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Yes	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Response Parameters

Status code: 201

Table 5-7 Response body parameters

Parameter	Type	Description
template_id	Integer	ID of a custom transcoding template.

Status code: 403

Table 5-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates a customized transcoding template.

POST https://{endpoint}/v1/{project_id}/template/transcodings

```
{
  "template_name" : "MP4_H.264_1920x1080_6000_HEAAC",
  "video" : {
    "codec" : 1,
    "bitrate" : 6000,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "black_cut" : 0,
    "bframes_count" : 4,
    "frame_rate" : 1,
    "width" : 1920,
    "height" : 1080
  },
  "audio" : {
    "codec" : 1,
    "sample_rate" : 4,
    "bitrate" : 128,
    "channels" : 2
  },
  "common" : {
    "PVC" : false,
    "hls_interval" : 5,
    "dash_interval" : 5,
    "pack_type" : 1
  }
}
```

Example Responses

Status code: 201

Transcoding template created successfully.

```
{  
  "template_id" : 2000211  
}
```

Status code: 403

Failed to create a transcoding template.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
201	Transcoding template created successfully.
403	Failed to create a transcoding template.

Error Codes

See [Error Codes](#).

5.2 Modifying a Transcoding Template

Function

This API is used to modify a custom transcoding template.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTemplate:update	Write	-	-	-	-

URI

PUT /v1/{project_id}/template/transcodings

Table 5-9 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 5-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 5-11 Request body parameters

Parameter	Mandatory	Type	Description
template_id	Yes	Long	ID of a transcoding template
template_name	Yes	String	Name of the transcoding template.
video	No	Video object	Video information
audio	No	Audio object	Audio information
common	Yes	Common object	Common information

Table 5-12 Video

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
bitrate	No	Integer	<p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 30,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to 0, the average output bitrate is an adaptive value.</p>

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3. The default value is 0, indicating that the average output bitrate is adaptive to codec.</p> <ul style="list-style-type: none"> • When codec is set to 1, profile is set to 3. • When codec is set to 2, profile is set to 4. <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN
level	No	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 60.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>

Parameter	Mandatory	Type	Description
width	No	Integer	<p>Video width</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 4,096. • H.265: The value is 0 or a multiple of 2 from 320 to 4,096. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>
height	No	Integer	<p>Video height</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 2,880. • H.265: The value is 0 or a multiple of 2 from 96 to 2,880. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>
black_cut	No	Integer	<p>Whether to enable black bar removal.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes
stream_name	No	String	Stream name

Table 5-13 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Mandatory	Type	Description
sample_rate	No	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Yes	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 5-14 Common

Parameter	Mandatory	Type	Description
PVC	No	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	No	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	No	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Yes	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Response Parameters

Status code: 204

Transcoding template modified successfully.

Status code: 403

Table 5-15 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Updates a transcoding template.

```
PUT https://{endpoint}/v1/{project_id}/template/transcodings/
{
  "template_id" : 1001,
  "template_name" : "MP4_H.264_1920x1080_6000_HEAAC_PVC",
  "video" : {
    "codec" : 1,
    "bitrate" : 6000,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "black_cut" : 0,
    "bframes_count" : 4,
    "frame_rate" : 1,
    "width" : 1920,
    "height" : 1080
  },
  "audio" : {
    "codec" : 1,
    "sample_rate" : 4,
    "bitrate" : 128,
    "channels" : 2
  },
  "common" : {
    "PVC" : false,
    "hls_interval" : 5,
    "dash_interval" : 5,
    "pack_type" : 1
  }
}
```

Example Responses

Status code: 403

Failed to modify the transcoding template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
204	Transcoding template modified successfully.
403	Failed to modify the transcoding template.

Error Codes

See [Error Codes](#).

5.3 Deleting a Transcoding Template

Function

This API is used to delete a custom transcoding template.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTemplate:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/template/transcodings

Table 5-16 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 5-17 Query Parameters

Parameter	Mandatory	Type	Description
template_id	Yes	Integer	ID of a custom transcoding template

Request Parameters

Table 5-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Transcoding template deleted successfully.

Status code: 403

Table 5-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template/transcodings?template_id=1001
```

Example Responses

Status code: 403

Failed to delete the transcoding template.

```
{  
  "error_code" : "MPC.10212",  
  "error_msg" : "Operation failed."  
}
```

Status Codes

Status Code	Description
204	Transcoding template deleted successfully.
403	Failed to delete the transcoding template.

Error Codes

See [Error Codes](#).

5.4 Querying Transcoding Templates

Function

Queries one or more custom transcoding templates.

You can query up to 10 templates by ID or page number.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTemplate:view	List	-	-	-	-

URI

GET /v1/{project_id}/template/transcodings

Table 5-20 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 5-21 Query Parameters

Parameter	Mandatory	Type	Description
template_id	No	Array of integers	ID of a transcoding template. A maximum of 10 transcoding template IDs can be queried at a time.
page	No	Integer	Page number. This parameter is invalid when task_id is specified. Default value: 0
size	No	Integer	Number of records on each page. Value range: [1,1000]. This parameter is invalid when template_id is specified.

Request Parameters

Table 5-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 5-23 Response body parameters

Parameter	Type	Description
template_array	Array of TemplateInfo objects	Details about the transcoding templates
total	Integer	Total number of transcoding templates

Table 5-24 TemplateInfo

Parameter	Type	Description
template_id	Integer	ID of each queried transcoding template

Parameter	Type	Description
template	QueryTransTemplate object	Configurations built in the transcoding templates

Table 5-25 QueryTransTemplate

Parameter	Type	Description
template_name	String	Name of a transcoding template
video	Video object	Video information
audio	Audio object	Audio information
common	Common object	Common information

Table 5-26 Video

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy

Parameter	Type	Description
codec	Integer	Video codec. Possible values: <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
bitrate	Integer	Average output bitrate Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
profile	Integer	Encoding profile. The recommended value is 3 . The default value is 0 , indicating that the average output bitrate is adaptive to codec. <ul style="list-style-type: none"> • When codec is set to 1, profile is set to 3. • When codec is set to 2, profile is set to 4. The options are as follows: <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 60.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
width	Integer	<p>Video width</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 4,096. • H.265: The value is 0 or a multiple of 2 from 320 to 4,096. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>
height	Integer	<p>Video height</p> <ul style="list-style-type: none"> • H.264: The value is 0 or a multiple of 2 from 32 to 2,880. • H.265: The value is 0 or a multiple of 2 from 96 to 2,880. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>

Parameter	Type	Description
black_cut	Integer	Whether to enable black bar removal. Possible values: <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes
stream_name	String	Stream name

Table 5-27 Audio

Parameter	Type	Description
output_policy	String	Output policy: <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. The options are as follows: <ul style="list-style-type: none"> • discard • transcode • copy

Parameter	Type	Description
codec	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 5-28 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Status code: 403

Table 5-29 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/templates/transcoding?template_id=80985
```

Example Responses

Status code: 200

Transcoding template queried successfully.

```
{
  "template_array" : [ {
    "template_id" : 80985,
    "template" : {
      "template_name" : "test_template",
      "video" : {
        "output_policy" : "transcode",
        "codec" : 1,
        "bitrate" : 0,
        "profile" : 3,
        "level" : 15,
        "preset" : 3,
        "max_iframes_interval" : 5,
        "bframes_count" : 4,
        "frame_rate" : 0,
        "width" : 0,
        "height" : 0,
        "black_cut" : 0
      },
      "audio" : {
        "output_policy" : "transcode",
        "codec" : 1,
        "bitrate" : 0,
        "sample_rate" : 1,
        "channels" : 2
      },
      "common" : {
        "PVC" : false,
        "hls_interval" : 5,
        "dash_interval" : 5,
        "pack_type" : 1
      }
    }
  } ],
  "total" : 1
}
```

Status code: 403

Failed to query the transcoding template.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

Status Codes

Status Code	Description
200	Transcoding template queried successfully.
403	Failed to query the transcoding template.

Error Codes

See [Error Codes](#).

6 Transcoding Template Group APIs

6.1 Creating a Transcoding Template Group

Function

This API is used to create a transcoding template group. In a custom transcoding template group, a maximum of six output configurations can be defined.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:templateGroup:create	Write	-	-	-	-

URI

POST /v1/{project_id}/template_group/transcodings

Table 6-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 6-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 6-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Name of each queried template group
videos	No	Array of VideoObj objects	List of output video configurations
audio	No	Audio object	Audio parameters

Parameter	Mandatory	Type	Description
video_common	No	VideoCommon object	Common video parameters
common	No	Common object	Common parameters

Table 6-4 VideoObj

Parameter	Mandatory	Type	Description
width	Yes	Integer	Video width, in pixels <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 4,096. • H.265: The value is a multiple of 2 from 320 to 4,096.
height	Yes	Integer	Video height, in pixels <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 2,880. • H.265: The value is a multiple of 2 from 240 to 2,880.
bitrate	Yes	Integer	Average output bitrate Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
stream_name	No	String	Stream name

Table 6-5 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Mandatory	Type	Description
sample_rate	No	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Yes	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 6-6 VideoCommon

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BAS E • 2: VIDEO_PROFILE_H264_MAI N • 3: VIDEO_PROFILE_H264_HIG H • 4: VIDEO_PROFILE_H265_MAI N
level	No	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>The value is 0 (adaptive) or an integer ranging from 5 to 60.</p> <p>Unit: FPS</p>

Parameter	Mandatory	Type	Description
black_cut	No	Integer	Whether to enable black bar removal. <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes

Table 6-7 Common

Parameter	Mandatory	Type	Description
PVC	No	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	No	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	No	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second

Parameter	Mandatory	Type	Description
pack_type	Yes	Integer	<p>Container format.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI <p>NOTE If pack_type is set to 5 or 6, do not configure video parameters. If pack_type is set to 9, multi-audio is not supported. If pack_type is set to 10, H.265 encoding is not supported.</p>

Response Parameters

Status code: 201

Table 6-8 Response body parameters

Parameter	Type	Description
template_group	TemplateGroup object	Details about the custom template group

Table 6-9 TemplateGroup

Parameter	Type	Description
group_id	String	ID of each queried template group
name	String	Name of each queried template group
template_ids	Array of integers	IDs of templates in each queried template group
videos	Array of VideoAndTemplate objects	List of output video configurations
audio	Audio object	Audio information

Parameter	Type	Description
video_common	VideoCommon object	Common video information
common	Common object	Common information

Table 6-10 VideoAndTemplate

Parameter	Type	Description
template_id	Integer	Template ID
width	Integer	Video width, in pixels <ul style="list-style-type: none"> H.264: The value is a multiple of 2 from 32 to 4,096. H.265: The value is a multiple of 2 from 320 to 4,096.
height	Integer	Video height, in pixels <ul style="list-style-type: none"> H.264: The value is a multiple of 2 from 32 to 2,880. H.265: The value is a multiple of 2 from 240 to 2,880.
bitrate	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
stream_name	String	Stream name

Table 6-11 Audio

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Type	Description
sample_rate	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 6-12 VideoCommon

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
profile	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	Maximum B-frame interval. Range <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. Unit: frame
frame_rate	Integer	Frame rate. The value is 0 (adaptive) or an integer ranging from 5 to 60. Unit: FPS
black_cut	Integer	Whether to enable black bar removal. <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes

Table 6-13 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true.)
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. Value range: [2,10] Unit: second

Parameter	Type	Description
dash_interval	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Status code: 400

Table 6-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates a transcoding template group of a maximum of one input and six output streams.

POST https://{endpoint}/v1/{project_id}/template_group/transcodings

```
{
  "name" : "my_templateGroup",
  "videos" : [ {
    "width" : "480",
    "height" : "270",
    "bitrate" : "200"
  } ]
}
```

```
    }],  
    "audio" : {  
      "codec" : 1,  
      "sample_rate" : 1,  
      "channels" : 2,  
      "bitrate" : 0  
    },  
    "video_common" : {  
      "codec" : 1,  
      "black_cut" : 0,  
      "profile" : 3,  
      "level" : 15,  
      "preset" : 3,  
      "max_iframes_interval" : 5,  
      "bframes_count" : 4,  
      "frame_rate" : 0  
    },  
    "common" : {  
      "PVC" : false,  
      "pack_type" : 1,  
      "hls_interval" : 5,  
      "dash_interval" : 5  
    }  
  }  
}
```

Example Responses

Status code: 201

Transcoding template group created successfully.

```
{  
  "template_group" : {  
    "group_id" : "f7fc420b17db414fb11652671581bb6d",  
    "name" : "my_templateGroup",  
    "template_ids" : [ 286548 ],  
    "videos" : [ {  
      "template_id" : 286548,  
      "width" : 480,  
      "height" : 270,  
      "bitrate" : 200  
    } ],  
    "audio" : {  
      "output_policy" : "transcode",  
      "codec" : 1,  
      "bitrate" : 0,  
      "sample_rate" : 1,  
      "channels" : 2  
    },  
    "video_common" : {  
      "output_policy" : "transcode",  
      "codec" : 1,  
      "profile" : 3,  
      "level" : 15,  
      "preset" : 1,  
      "max_iframes_interval" : 5,  
      "bframes_count" : 4,  
      "frame_rate" : 0,  
      "black_cut" : 0  
    },  
    "common" : {  
      "PVC" : false,  
      "hls_interval" : 5,  
      "dash_interval" : 5,  
      "pack_type" : 1  
    }  
  }  
}
```

Status code: 400

Failed to create a transcoding template group.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
201	Transcoding template group created successfully.
400	Failed to create a transcoding template group.

Error Codes

See [Error Codes](#).

6.2 Querying Transcoding Template Groups

Function

This API is used to query one or more custom transcoding template groups.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:templateGroup:view	Write	-	-	-	-

URI

GET /v1/{project_id}/template_group/transcodings

Table 6-15 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 6-16 Query Parameters

Parameter	Mandatory	Type	Description
group_id	No	Array of strings	ID of a transcoding template group. A maximum of 10 transcoding template group IDs can be queried at a time.
group_name	No	Array of strings	Name of a transcoding template group. A maximum of 10 transcoding template group names can be queried at a time.
page	No	Integer	Page number. If group_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. Value range: [1,1000]. This parameter is invalid when group_id is specified.

Request Parameters

Table 6-17 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Parameter	Mandatory	Type	Description
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 6-18 Response body parameters

Parameter	Type	Description
template_group_list	Array of TemplateGroup objects	Details about the template groups
total	Integer	Total number of transcoding template groups

Table 6-19 TemplateGroup

Parameter	Type	Description
group_id	String	ID of each queried template group
name	String	Name of each queried template group
template_ids	Array of integers	IDs of templates in each queried template group
videos	Array of VideoAndTemplate objects	List of output video configurations
audio	Audio object	Audio information
video_common	VideoCommon object	Common video information

Parameter	Type	Description
common	Common object	Common information

Table 6-20 VideoAndTemplate

Parameter	Type	Description
template_id	Integer	Template ID
width	Integer	Video width, in pixels <ul style="list-style-type: none"> H.264: The value is a multiple of 2 from 32 to 4,096. H.265: The value is a multiple of 2 from 320 to 4,096.
height	Integer	Video height, in pixels <ul style="list-style-type: none"> H.264: The value is a multiple of 2 from 32 to 2,880. H.265: The value is a multiple of 2 from 240 to 2,880.
bitrate	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
stream_name	String	Stream name

Table 6-21 Audio

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Type	Description
sample_rate	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 6-22 VideoCommon

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
profile	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	Maximum B-frame interval. Range <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. Unit: frame
frame_rate	Integer	Frame rate. The value is 0 (adaptive) or an integer ranging from 5 to 60. Unit: FPS
black_cut	Integer	Whether to enable black bar removal. <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes

Table 6-23 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true.)
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. Value range: [2,10] Unit: second

Parameter	Type	Description
dash_interval	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Status code: 403

Table 6-24 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/template_group/transcodings?page=0&size=10
```

Example Responses

Status code: 200

Transcoding template group queried successfully.

```
{
  "total": 1,
  "template_group_list": [ {
```

```
"group_id" : "397565a34913415c91955254add0461a",
"name" : "test_templageGroup",
"template_ids" : [ 276195 ],
"videos" : [ {
  "template_id" : 276195,
  "width" : 854,
  "height" : 480,
  "bitrate" : 500
} ],
"audio" : {
  "output_policy" : "transcode",
  "codec" : 1,
  "bitrate" : 0,
  "sample_rate" : 1,
  "channels" : 2
},
"video_common" : {
  "output_policy" : "transcode",
  "codec" : 1,
  "profile" : 3,
  "level" : 15,
  "preset" : 3,
  "max_iframes_interval" : 5,
  "bframes_count" : 4,
  "frame_rate" : 0,
  "black_cut" : 0
},
"common" : {
  "PVC" : false,
  "hls_interval" : 5,
  "dash_interval" : 5,
  "pack_type" : 4
}
} ]
}
```

Status code: 403

Failed to query the transcoding template group.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

Status Codes

Status Code	Description
200	Transcoding template group queried successfully.
403	Failed to query the transcoding template group.

Error Codes

See [Error Codes](#).

6.3 Modifying a Transcoding Template Group

Function

This API is used to modify a custom transcoding template group.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:templateGroup:update	Write	-	-	-	-

URI

PUT /v1/{project_id}/template_group/transcodings

Table 6-25 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 6-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 6-27 Request body parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	ID of a template group
name	No	String	Name of the template group
videos	No	Array of VideoObj objects	List of output video configurations
audio	No	Audio object	Audio information
video_common	No	VideoCommon object	Common video information
common	No	Common object	Common information

Table 6-28 VideoObj

Parameter	Mandatory	Type	Description
width	Yes	Integer	Video width, in pixels <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 4,096. • H.265: The value is a multiple of 2 from 320 to 4,096.
height	Yes	Integer	Video height, in pixels <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 2,880. • H.265: The value is a multiple of 2 from 240 to 2,880.
bitrate	Yes	Integer	Average output bitrate Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
stream_name	No	String	Stream name

Table 6-29 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Mandatory	Type	Description
sample_rate	No	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Yes	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 6-30 VideoCommon

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN
level	No	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>The value is 0 (adaptive) or an integer ranging from 5 to 60.</p> <p>Unit: FPS</p>

Parameter	Mandatory	Type	Description
black_cut	No	Integer	Whether to enable black bar removal. <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes

Table 6-31 Common

Parameter	Mandatory	Type	Description
PVC	No	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	No	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	No	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second

Parameter	Mandatory	Type	Description
pack_type	Yes	Integer	<p>Container format.</p> <p>The options include:</p> <ul style="list-style-type: none"> ● 1: HLS ● 2: DASH ● 3: HLS+DASH ● 4: MP4 ● 5: MP3 ● 6: ADTS ● 8: MOV ● 9: FLV ● 10: AVI <p>NOTE</p> <p>If pack_type is set to 5 or 6, do not configure video parameters. If pack_type is set to 9, multi-audio is not supported. If pack_type is set to 10, H.265 encoding is not supported.</p>

Response Parameters

Status code: 204

Transcoding template group modified successfully.

Status code: 400

Table 6-32 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Updates a transcoding template group.

```
PUT https://{endpoint}/v1/{project_id}/template_group/transcodings
```

```
{
  "group_id" : "bd55741ccdf04e678f800c010aa12b68",
  "name" : "test_group",
  "videos" : [ {
    "width" : 480,
    "height" : 270,
    "bitrate" : 200
  }, {
```

```
"width" : "1280",  
"height" : "720",  
"bitrate" : "700"  
}],  
"audio" : {  
  "codec" : 1,  
  "sample_rate" : 1,  
  "channels" : 2,  
  "bitrate" : 0  
},  
"video_common" : {  
  "codec" : 1,  
  "black_cut" : 0,  
  "profile" : 3,  
  "level" : 15,  
  "preset" : 3,  
  "max_iframes_interval" : 5,  
  "bframes_count" : 4,  
  "frame_rate" : 0  
},  
"common" : {  
  "PVC" : false,  
  "pack_type" : 1,  
  "hls_interval" : 5,  
  "dash_interval" : 5  
}  
}
```

Example Responses

Status code: 400

Failed to modify the transcoding template group.

```
{  
  "error_code" : "MPC.10212",  
  "error_msg" : "Operation failed."  
}
```

Status Codes

Status Code	Description
204	Transcoding template group modified successfully.
400	Failed to modify the transcoding template group.

Error Codes

See [Error Codes](#).

6.4 Deleting a Transcoding Template Group

Function

This API is used to delete a custom transcoding template group.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:templateGroup:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/template_group/transcodings

Table 6-33 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 6-34 Query Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	ID of a template group

Request Parameters

Table 6-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Transcoding template group deleted successfully.

Status code: 400

Table 6-36 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template_group/transcodings?group_id=1001
```

Example Responses

Status code: 400

Failed to delete the transcoding template group.

```
{  
  "error_code" : "MPC.10212",  
  "error_msg" : "Operation failed."  
}
```

Status Codes

Status Code	Description
204	Transcoding template group deleted successfully.
400	Failed to delete the transcoding template group.

Error Codes

See [Error Codes](#).

7 Watermark Template APIs

7.1 Creating a Watermark Template

Function

Creates a custom watermark template. A maximum of 100,000 watermark templates can be created by default.

Visible watermarks can be inserted into video content. These watermarks have various applications and content types, such as sponsor or partner logo, quality or certification mark.

A watermark template is a collection of preset parameters used to define key attributes such as the watermark's position and size. Watermark templates streamline the development process of watermarked applications, achieving rapid and consistent watermarking.

- A watermark template applies only to image watermarks, not text ones. To add a text watermark, specify the parameter **WaterMarks** in the API **CreateTranscodingTask**.
- A watermark template only specifies the position and size of the watermark, and does not include the watermark material. The watermark material needs to be added when submitting a media transcoding task.
- A watermark template can be created either through the console or by calling the API **CreateWatermarkTemplate**.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.

- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:watermarkTemplate:create	Write	-	-	-	-

URI

POST /v1/{project_id}/template/watermark

Table 7-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 7-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.

Parameter	Mandatory	Type	Description
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 7-3 Request body parameters

Parameter	Mandatory	Type	Description
dx	No	String	<p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096] • Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video width is 1920 pixels, dx is set to 0.1, and referpos is set to TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Mandatory	Type	Description
dy	No	String	<p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"> • Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096]. • Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video height is 1080 pixels, dy is set to 0.1, and referpos is set to TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	No	String	<p>Watermark position. The options include:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • BottomRight: lower right corner • BottomLeft: lower left corner <p>ClockWise: clockwise AntiClockWise: counterclockwise Random: random placement</p>

Parameter	Mandatory	Type	Description
timeline_start	No	String	Watermark start time, which is used together with timeline_duration . Its value is a digit. Unit: second
timeline_duration	No	String	Watermark duration, which is used together with timeline_start . The value ranges from <i>number</i> to ToEND . ToEND indicates that the watermark lasts until the end of the video. Default value: ToEND
random_time_min	No	String	Minimum rotation interval, in seconds. Value range: (0,3600000]
random_time_max	No	String	Maximum rotation interval, in seconds. Value range: (0,3600000]
image_processing	No	String	Image watermarking method. This parameter is valid only when type is set to Image . Options: <ul style="list-style-type: none"> • Original: Only simple scaling is performed. • Grayed: Image graying is performed. • Transparent: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.

Parameter	Mandatory	Type	Description
width	No	String	<p>Watermark image width. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.
height	No	String	<p>Watermark image height. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.

Parameter	Mandatory	Type	Description
base	No	String	Video on which a watermark is overlaid Options: <ul style="list-style-type: none"> • input: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video. • output: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.
template_id	No	Integer	ID of a watermark template.
template_name	No	String	Watermark template name, which contains a maximum of 64 characters
type	No	String	Watermark type, which can only be set to Image . Text watermark (Text) will be supported later as required.

Response Parameters

Status code: 201

Table 7-4 Response body parameters

Parameter	Type	Description
template_id	Integer	ID of each queried watermark template

Status code: 403

Table 7-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code

Parameter	Type	Description
error_msg	String	Error description

Example Requests

Creates a watermark template. A maximum of 100,000 watermark templates can be created by default.

POST https://{endpoint}/v1/{project_id}/template/watermark

```
{
  "template_name" : "watermark_1920*1080_10*10_ BottomLeft",
  "type" : "Image",
  "image_process" : "Grayed",
  "width" : "1920",
  "height" : "1080",
  "dx" : "10",
  "dy" : "10",
  "referpos" : "BottomLeft",
  "timeline_start" : "6",
  "timeline_duration" : "8"
}
```

Example Responses

Status code: 201

Watermark template created successfully.

```
{
  "template_id" : 100211
}
```

Status code: 403

Failed to create a watermark template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
201	Watermark template created successfully.
403	Failed to create a watermark template.

Error Codes

See [Error Codes](#).

7.2 Modifying a Watermark Template

Function

This API is used to modify a watermark template.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:watermarkTemplate:update	Write	-	-	-	-

URI

PUT /v1/{project_id}/template/watermark

Table 7-6 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 7-7 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 7-8 Request body parameters

Parameter	Mandatory	Type	Description
dx	No	String	<p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096] • Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video width is 1920 pixels, dx is set to 0.1, and referpos is set to TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Mandatory	Type	Description
dy	No	String	<p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"> • Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096]. • Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video height is 1080 pixels, dy is set to 0.1, and referpos is set to TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	No	String	<p>Watermark position. The options include:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • BottomRight: lower right corner • BottomLeft: lower left corner <p>ClockWise: clockwise AntiClockWise: counterclockwise Random: random placement</p>

Parameter	Mandatory	Type	Description
timeline_start	No	String	Watermark start time, which is used together with timeline_duration . Its value is a digit. Unit: second
timeline_duration	No	String	Watermark duration, which is used together with timeline_start . The value ranges from <i>number</i> to ToEND . ToEND indicates that the watermark lasts until the end of the video. Default value: ToEND
random_time_min	No	String	Minimum rotation interval, in seconds. Value range: (0,3600000]
random_time_max	No	String	Maximum rotation interval, in seconds. Value range: (0,3600000]
image_processing	No	String	Image watermarking method. This parameter is valid only when type is set to Image . Options: <ul style="list-style-type: none"> • Original: Only simple scaling is performed. • Grayed: Image graying is performed. • Transparent: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.

Parameter	Mandatory	Type	Description
width	No	String	<p>Watermark image width. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.
height	No	String	<p>Watermark image height. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.

Parameter	Mandatory	Type	Description
base	No	String	Video on which a watermark is overlaid Options: <ul style="list-style-type: none"> • input: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video. • output: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.
template_id	No	Integer	ID of a watermark template.
template_name	No	String	Watermark template name, which contains a maximum of 64 characters
type	No	String	Watermark type, which can only be set to Image . Text watermark (Text) will be supported later as required.

Response Parameters

Status code: 204

Watermark template modified successfully.

Status code: 403

Table 7-9 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Updates a customized watermark template.

```
PUT https://{endpoint}/v1/{project_id}/template/watermark
```

```
{
  "template_name": "watermark_1920*1080_10*10_ BottomLeft",
  "type": "Image",
  "image_process": "Grayed",
  "width": "1920",
  "height": "1080",
  "dx": "0.1",
  "dy": "0.1",
  "referpos": "BottomLeft",
  "timeline_start": "6",
  "timeline_duration": "100"
}
```

Example Responses

Status code: 403

Failed to modify the watermark template.

```
{
  "error_code": "MPC.10202",
  "error_msg": "Invalid request parameter."
}
```

Status Codes

Status Code	Description
204	Watermark template modified successfully.
403	Failed to modify the watermark template.

Error Codes

See [Error Codes](#).

7.3 Deleting a Watermark Template

Function

This API is used to delete a watermark template.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.

- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:watermarkTemplate:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/template/watermark

Table 7-10 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 7-11 Query Parameters

Parameter	Mandatory	Type	Description
template_id	Yes	Integer	ID of a watermark template

Request Parameters

Table 7-12 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Watermark template deleted successfully.

Status code: 403

Table 7-13 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template/watermark?template_id=1001
```

Example Responses

Status code: 403

Failed to delete the watermark template.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

Status Codes

Status Code	Description
204	Watermark template deleted successfully.
403	Failed to delete the watermark template.

Error Codes

See [Error Codes](#).

7.4 Querying Watermark Templates

Function

This API is used to query one or more custom watermark templates by template ID or page number.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:watermarkTemplate:view	List	-	-	-	-

URI

GET /v1/{project_id}/template/watermark

Table 7-14 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 7-15 Query Parameters

Parameter	Mandatory	Type	Description
template_id	No	Array of integers	Watermark template ID. A maximum of 10 template IDs can be queried at a time.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If template_id is specified, this parameter is invalid. The value ranges from 1 to 100.

Request Parameters

Table 7-16 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 7-17 Response body parameters

Parameter	Type	Description
total	Integer	Total number of queried watermark templates
templates	Array of WatermarkTemplate objects	Details about queried watermark templates

Table 7-18 WatermarkTemplate

Parameter	Type	Description
dx	String	<p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"> Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096] Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video width is 1920 pixels, dx is set to 0.1, and referpos is set to TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Type	Description
dy	String	<p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"> • Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096]. • Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video height is 1080 pixels, dy is set to 0.1, and referpos is set to TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	String	<p>Watermark position. The options include:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • BottomRight: lower right corner • BottomLeft: lower left corner <p>ClockWise: clockwise AntiClockWise: counterclockwise Random: random placement</p>
timeline_start	String	<p>Watermark start time, which is used together with timeline_duration. Its value is a digit. Unit: second</p>
timeline_duration	String	<p>Watermark duration, which is used together with timeline_start. The value ranges from <i>number</i> to ToEND. ToEND indicates that the watermark lasts until the end of the video. Default value: ToEND</p>

Parameter	Type	Description
random_time_min	String	Minimum rotation interval, in seconds. Value range: (0,3600000]
random_time_max	String	Maximum rotation interval, in seconds. Value range: (0,3600000]
image_process	String	Image watermarking method. This parameter is valid only when type is set to Image . Options: <ul style="list-style-type: none"> • Original: Only simple scaling is performed. • Grayed: Image graying is performed. • Transparent: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.
width	String	Watermark image width. The options are as follows: <ul style="list-style-type: none"> • Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.

Parameter	Type	Description
height	String	Watermark image height. The options are as follows: <ul style="list-style-type: none"> • Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.
base	String	Video on which a watermark is overlaid Options: <ul style="list-style-type: none"> • input: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video. • output: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.
template_id	Integer	ID of a watermark template.
template_name	String	Watermark template name, which contains a maximum of 64 characters
type	String	Watermark type, which can only be set to Image . Text watermark (Text) will be supported later as required.

Status code: 403

Table 7-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/templates/watermark?template_id =2743
```

Example Responses

Status code: 200

Watermark template queried successfully.

```
{
  "total" : 1,
  "templates" : [ {
    "dx" : 0.1,
    "dy" : 0.1,
    "referpos" : "TopRight",
    "timeline_start" : 0,
    "timeline_duration" : "ToEND",
    "image_process" : "Original",
    "width" : 0.1,
    "height" : 0.1,
    "base" : "input",
    "template_id" : 2743,
    "template_name" : "createWatermarkTemplate1xYcdyUz",
    "type" : "Image"
  } ]
}
```

Status code: 403

Failed to query the watermark template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
200	Watermark template queried successfully.
403	Failed to query the watermark template.

Error Codes

See [Error Codes](#).

8 Transcoding APIs

8.1 Creating a Transcoding Task

Function

This API is used to create a transcoding task to transcode media files, and add watermarks and capture snapshots during transcoding. A transcoding template must be configured before video transcoding.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTask:create	Write	-	-	-	-

URI

POST /v1/{project_id}/transcodings

Table 8-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 8-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 8-3 Request body parameters

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Storage location of an input file. This parameter is mandatory in scenarios where audio is not added.

Parameter	Mandatory	Type	Description
output	Yes	ObsObjInfo object	Storage location of an output file
trans_template_id	No	Array of integers	Transcoding template ID. If the av_parameter parameter is not contained, this parameter must be carried and its value is an array. Each transcoding output corresponds to a transcoding template ID. A maximum of nine template IDs are supported. Only the following parameters in transcoding templates can be changed: Video bitrate, height, and width
trans_template_list	No	Array of TransIdTemplate objects	Transcoding template list.
av_parameters	No	Array of AvParameters objects	Transcoding parameter If both trans_template_id and this parameter are specified, this parameter is preferentially used for transcoding. If trans_template_id is not specified, this parameter is mandatory.
additional_manifests	No	Array of AdditionalManifests objects	Customized parameter for the primary index.
output_filenames	No	Array of strings	Name of an output file. Each transcoded file has a name that corresponds to the sequence of the transcoding template ID array. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Parameter	Mandatory	Type	Description
user_data	No	String	Custom user data. You can call a query API or send a notification to transfer this field to users.
watermarks	No	Array of WatermarkRequest objects	Array of image watermarks. Up to 10 watermarks are supported.
thumbnail	No	Thumbnail object	Snapshot information NOTE Snapshots are generated only when the transcoding template specified by trans_template_id or the output resolution specified by av_parameters is 1920 x 1080, 1280 x 720, 854 x 480, or 480 x 270.
thumbnails	No	Array of Thumbnail objects	Multi-snapshot task, which is an array. A maximum of 20 members are supported.
image_sprites	No	Array of ImageSprite objects	Image sprite parameter, which is an array. A maximum of 20 members are supported.
priority	No	Integer	Task priority. Possible values: <ul style="list-style-type: none"> ● 9: high ● 6: medium (default)
subtitle	No	Subtitle object	Subtitle parameters
encryption	No	Encryption object	Encryption parameters
crop	No	Crop object	Number of seconds cropped from a video for which transcoding is performed on.
audio_track	No	AudioTrack object	Audio track parameters
multi_audio	No	MultiAudio object	Multi-language and multi-channel audio parameters
video_process	No	VideoProcess object	Video processing parameters
audio_process	No	AudioProcess object	Audio processing parameters

Parameter	Mandatory	Type	Description
metadata	No	Array of FileMetaData objects	Metadata setting. By default, only AIGC is supported.

Table 8-4 TransIdTemplate

Parameter	Mandatory	Type	Description
template_id	Yes	Integer	ID of the template used by the output video.
output	No	ObsObjInfo object	Output path. If this parameter is not set, the output is stored together with the outer transcoded output. Note: For HLS multiple outputs, if the path of each output is different, index.m3u8 is unavailable, and audio and video separation is unavailable.
output_filename	No	String	Output file name.

Table 8-5 AvParameters

Parameter	Mandatory	Type	Description
video	No	VideoParameters object	Video parameters
audio	No	Audio object	Audio parameters
common	Yes	Common object	Common parameters

Parameter	Mandatory	Type	Description
output	No	ObsObjInfo object	Output path. If this parameter is not set, the output is stored together with the outer transcoded output. Note: For HLS multiple outputs, if the path of each output is different, index.m3u8 is unavailable, and audio and video separation is unavailable.
output_filename	No	String	Output file name.

Table 8-6 VideoParameters

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: VIDEO_CODEC_H264 • 2: VIDEO_CODEC_H265
crf	No	Object	<p>Factor for controlling the constant video bitrate.</p> <p>The value range is [0, 51].</p>

Parameter	Mandatory	Type	Description
max_bitrate	No	Integer	Maximum output bitrate. The value can be 0 or an integer from 40 to 800,000. Unit: kbit/s This field is used when the Constant Rate Factor (CRF) is used. The value is generally set to 1.5 times of the average bitrate of the source file.
bitrate	No	Integer	Average output bitrate Its value is 0 or an integer ranging from 40 to 50,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
buf_size	No	Integer	Buffer size. The value can be 0 or an integer from 40 to 800,000. Unit: kbit
profile	No	Integer	Encoding profile. Possible values: <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BAS E • 2: VIDEO_PROFILE_H264_MAI N • 3: VIDEO_PROFILE_H264_HIG H • 4: VIDEO_PROFILE_H265_MAI N

Parameter	Mandatory	Type	Description
level	No	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	No	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Mandatory	Type	Description
bframes_count	No	Integer	<p>Maximum B-frame interval. Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate. The value is 0 (adaptive) or ranges from 5 to 60. Unit: FPS</p> <p>NOTE If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
width	No	Integer	<p>Video width, in pixels</p> <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 4,096. • H.265: The value is a multiple of 2 from 320 to 4,096.
height	No	Integer	<p>Video height, in pixels</p> <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 2,880. • H.265: The value is a multiple of 2 from 240 to 2,880.

Parameter	Mandatory	Type	Description
black_cut	No	Integer	Whether to enable black bar removal. <ul style="list-style-type: none">• 0: disables black bar removal• 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes• 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes
stream_name	No	String	Stream name

Table 8-7 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	No	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Mandatory	Type	Description
sample_rate	No	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Yes	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 8-8 Common

Parameter	Mandatory	Type	Description
PVC	No	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	No	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	No	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Yes	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Table 8-9 AdditionalManifests

Parameter	Mandatory	Type	Description
manifest_name_modifier	No	String	Customized index file name extension
selected_outputs	No	Array of strings	Name of the selected stream

Table 8-10 WatermarkRequest

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Storage location of an input file. This parameter is mandatory if an image watermark is used.
template_id	No	String	ID of a watermark template. You can call an API to create a watermark template.
text_context	No	String	Base64-coded text watermark. This parameter must be configured when type is set to Text . For example, if the text watermark to be added is "Test Text Watermark", the value of content is 5rWL6K+V5paH5a2X5rC05Y2w .
image_watermark	No	ImageWatermark object	Watermark parameters used for overwriting the parameters with the same names in the watermark template
text_watermark	No	TextWatermark object	Text watermark configurations. If text_context is set, this field cannot be left blank.

Table 8-11 ImageWatermark

Parameter	Mandatory	Type	Description
dx	No	String	<p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none">• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video width is 1920 pixels, dx is set to 0.1, and referpos is set to TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Mandatory	Type	Description
dy	No	String	<p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"> • Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096]. • Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video height is 1080 pixels, dy is set to 0.1, and referpos is set to TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	No	String	<p>Watermark position. The options include:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • BottomRight: lower right corner • BottomLeft: lower left corner <p>ClockWise: clockwise AntiClockWise: counterclockwise Random: random placement</p>

Parameter	Mandatory	Type	Description
timeline_start	No	String	Watermark start time, which is used together with timeline_duration . Its value is a digit. Unit: second
timeline_duration	No	String	Watermark duration, which is used together with timeline_start . The value ranges from <i>number</i> to ToEND . ToEND indicates that the watermark lasts until the end of the video. Default value: ToEND
random_time_min	No	String	Minimum rotation interval, in seconds. Value range: (0,3600000]
random_time_max	No	String	Maximum rotation interval, in seconds. Value range: (0,3600000]
image_processing	No	String	Image watermarking method. This parameter is valid only when type is set to Image . Options: <ul style="list-style-type: none"> • Original: Only simple scaling is performed. • Grayed: Image graying is performed. • Transparent: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.

Parameter	Mandatory	Type	Description
width	No	String	<p>Watermark image width. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.
height	No	String	<p>Watermark image height. The options are as follows:</p> <ul style="list-style-type: none"> • Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096. • Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.

Parameter	Mandatory	Type	Description
base	No	String	Video on which a watermark is overlaid Options: <ul style="list-style-type: none">• input: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video.• output: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.

Table 8-12 TextWatermark

Parameter	Mandatory	Type	Description
dx	No	String	<p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none">• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video width is 1920 pixels, dx is set to 0.1, and referpos is set to TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Mandatory	Type	Description
dy	No	String	<p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"> • Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096]. • Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated. <p>For example, if the output video height is 1080 pixels, dy is set to 0.1, and referpos is set to TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	No	String	<p>Watermark position. The options include:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • BottomRight: lower right corner • BottomLeft: lower left corner <p>ClockWise: clockwise AntiClockWise: counterclockwise Random: random placement</p>

Parameter	Mandatory	Type	Description
timeline_start	No	String	Watermark start time, which is used together with timeline_duration . Its value is a digit. Unit: second
timeline_duration	No	String	Watermark duration, which is used together with timeline_start . The value ranges from <i>number</i> to ToEND . ToEND indicates that the watermark lasts until the end of the video. Default value: ToEND
random_time_min	No	String	Minimum rotation interval, in seconds. Value range: (0,3600000]
random_time_max	No	String	Maximum rotation interval, in seconds. Value range: (0,3600000]
font_name	No	String	Font. Only fzyouh is supported.
font_size	No	Integer	Font size The value ranges from 4 to 120.
font_color	No	String	Font color. The options are as follows: black, blue, white, green, red, yellow, brown, gold, pink, orange, and purple
base	No	String	Video on which the watermark is overlaid. Possible values: <ul style="list-style-type: none"> • input: The watermark is overlaid on the input file. After transcoding, the size of the output file is scaled based on the aspect ratio of images. • output: The watermark is overlaid on the output file. Default value: input

Table 8-13 Thumbnail

Parameter	Mandatory	Type	Description
tar	No	Integer	Whether to compress captured snapshots to a TAR package. Possible values: <ul style="list-style-type: none"> • 0: Captured snapshots are compressed to a TAR package. • 1: Captured snapshots are not compressed to a TAR package.
out	No	ObsObjInfo object	Storage location of snapshots. If this parameter is not set, snapshots are stored in the same location as the output file.
params	Yes	ThumbnailPara object	Snapshot parameters

Table 8-14 ThumbnailPara

Parameter	Mandatory	Type	Description
type	No	String	Sampling type Possible options are: <ul style="list-style-type: none"> • TIME: Snapshots are captured at certain intervals. • DOTS: Snapshots are captured at specific time points. Select this type for single snapshot capture. Default value: TIME
amount	No	Integer	If the black pixel ratio is greater than or equal to this threshold, the frame is classified as a black frame.
threshold	No	Integer	If the pixel value is below this threshold, the pixel is treated as black.

Parameter	Mandatory	Type	Description
time	No	Integer	Interval for capturing snapshots. Value range: [1,100]. Default value: 12. Unit: second
start_time	No	Integer	Start time for the sampling type set to TIME . This parameter is used together with time . Default value: 0 Unit: second NOTE If the value of start_time exceeds the media file duration, frames are not extracted.
duration	No	Integer	Capture duration when the sampling type is set to TIME . This parameter is used together with time and start_time , indicating that the first snapshot is captured at the time specified by start_time and snapshots are captured at the interval specified by time until the duration specified by this parameter elapses. Value range: [Number, ToEND]. ToEND indicates that snapshot capturing lasts till the end of the video. Default value: ToEND Unit: second NOTE 0 indicates that snapshot capturing lasts from start_time to the end of the video.

Parameter	Mandatory	Type	Description
dots	No	Array of integers	<p>Array of time points when a snapshot is captured</p> <p>For example, if you enter [1,3,5], the image frames at the first, third, and fifth seconds of the video are captured.</p> <ul style="list-style-type: none"> Asynchronous snapshot capturing: A maximum of 10 time points are supported. Synchronous snapshot capturing: Only one time point is supported.
dots_ms	No	Array of integers	<p>Time point array of snapshot at a specified time in synchronous snapshot mode, in milliseconds.</p> <p>For example, enter [1000] to capture the image frame at the 1000th ms position of the video. Only one time point is allowed.</p>
output_filename	No	String	<p>Snapshot file name.</p> <ul style="list-style-type: none"> If only one snapshot is captured (the sampling type is DOTS and only one time point is specified), the output file name is the specified snapshot file name. If multiple snapshots are captured (the sampling type is DOTS and multiple time points are specified or the sampling type is TIME), an output file name contains the specified snapshot file name followed by the time point, for example, output_filename_10.jpg. If you specify the snapshot to be compressed into a TAR package, the output file name is the TAR package name.

Parameter	Mandatory	Type	Description
format	No	Integer	Snapshot file format. The value is: 1 : JPG
width	No	Integer	Image width The options are as follows: <ul style="list-style-type: none"> • [96,3840] • 0: adaptive (the original aspect ratio is retained) Unit: pixel
height	No	Integer	Image height The options are as follows: <ul style="list-style-type: none"> • [96,2160] • 0: adaptive (the original aspect ratio is retained) Unit: pixel
max_length	No	Integer	The longest side of a snapshot. The width of the snapshot is scaled proportionally with the longest side and input video pixel. The value ranges from 240 to 3,840. Unit: pixel NOTE This parameter is used together with width/height . If neither width nor height is 0, the image size is calculated based on width/height . Otherwise, the image size is calculated based on max_length . If this parameter and width/height are not selected, snapshots are output based on the aspect ratio of the source media file.

Table 8-15 ImageSprite

Parameter	Mandatory	Type	Description
params	Yes	ImageSpriteP ara object	Image sprite parameters.

Parameter	Mandatory	Type	Description
output	No	ObsObjInfo object	Output path of the image sprite. If this parameter is left blank, the image sprite is stored together with the transcoded output.
output_object_name	No	String	Output file name of the image sprite. If it is not specified, the default naming convention is: {inputName}imageSprite{sprite ID}_{number}.{format}. {sprite ID} and {number} starts from 0 and increments sequentially.
webvtt_object_name	No	String	Output path of the Web VTT file after the image sprite is captured. The value must be a relative path. If it is not specified, the default relative path is {inputName}imageSprite{image sprite ID}.vtt.

Table 8-16 ImageSpritePara

Parameter	Mandatory	Type	Description
sample_type	Yes	String	Sampling type. The options are: <ul style="list-style-type: none"> • PERCENT: by percentage • TIME: by time interval
sample_interval	Yes	Integer	Sampling interval. <ul style="list-style-type: none"> • When sample_type is set to PERCENT, the sampling interval is specified as a percentage. The value range is (0,100]. • When sample_type is set to TIME, the sampling interval is specified as a time in seconds. The value range is (0,360000].

Parameter	Mandatory	Type	Description
row_count	Yes	Integer	Number of rows of sub-images in the image sprite. The number of rows multiplied by the number of columns cannot exceed 100.
column_count	Yes	Integer	Number of columns of sub-images in the image sprite. The number of rows multiplied by the number of columns cannot exceed 100.
width	No	Integer	Maximum width (or long side) of sub-images in the image sprite. The value can be 0 or a number within [96, 4096], in pixels. <ul style="list-style-type: none">• If both width and height are 0, the resolution follows the source.• If width is 0 but height is not 0, the width is scaled proportionally.• If width is not 0 but height is 0, the height is scaled proportionally.• If neither width nor height is 0, the resolution is manually specified.
height	No	Integer	Maximum height (or short side) of sub-images in the image sprite. The value can be 0 or a number within [96, 4096], in pixels. <ul style="list-style-type: none">• If both width and height are 0, the resolution follows the source.• If width is 0 but height is not 0, the width is scaled proportionally.• If width is not 0 but height is 0, the height is scaled proportionally.• If neither width nor height is 0, the resolution is manually specified.

Parameter	Mandatory	Type	Description
resolution_adaptive	No	String	Resolution adaptation. The options are: <ul style="list-style-type: none"> • open: width represents the long side of the video, and height represents the short side of the video. • close: width indicates the width of the video, and height indicates the height of the video.
fill_type	No	String	Fill mode. When the configured width and height parameters of the video stream do not match the aspect ratio of the source video, transcoding applies a fill method. The options include: <ul style="list-style-type: none"> • stretch: stretches each frame to fill the entire output frame. This may cause the transcoded video to appear distorted (compressed or elongated). • black: keeps the aspect ratio of the video unchanged and fills the remaining edges with black. • white: keeps the aspect ratio of the video unchanged and fills the remaining edges with white.
format	No	String	Image format. The value can be jpg or png . The default value is jpg .

Table 8-17 Subtitle

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Storage location of an SRT file

Parameter	Mandatory	Type	Description
inputs	No	Array of MullInputFileI nfo objects	Storage location of SRT files
subtitle_type	No	Integer	Subtitle file type. Possible values: <ul style="list-style-type: none"> • 0: No subtitle file is generated. • 1: An external subtitle file is inserted into the video stream. • 2: A WebVTT subtitle file is generated.

Table 8-18 MullInputFileInfo

Parameter	Mandatory	Type	Description
language	No	String	Subtitle language tag. The ISO 639-2 encoding format (https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes) is recommended.
input	No	ObsObjInfo object	Storage location of a subtitle file

Table 8-19 Encryption

Parameter	Mandatory	Type	Description
hls_encrypt	No	HlsEncrypt object	Encryption parameters for HLS videos

Table 8-20 HlsEncrypt

Parameter	Mandatory	Type	Description
key	Yes	String	Base64-encoded content encryption key
url	Yes	String	The key carries the service address, and can be decrypted to play HLS segments.

Parameter	Mandatory	Type	Description
iv	No	String	Initial vector, which is a random number in base64Binary format
algorithm	No	String	Encryption algorithm. Possible values: <ul style="list-style-type: none"> • AES-128-CTR • AES-128-CBC Default value: AES-128-CTR

Table 8-21 Crop

Parameter	Mandatory	Type	Description
duration	No	Integer	Duration of a captured video, starting from 0 seconds. Unit: second

Table 8-22 AudioTrack

Parameter	Mandatory	Type	Description
type	No	Integer	Audio track selection method. Possible values: <ul style="list-style-type: none"> • 0: selected by default • 1: selected manually
left	No	Integer	ID of the audio track where the left audio channel is
right	No	Integer	ID of the audio track where the right audio channel is

Table 8-23 MultiAudio

Parameter	Mandatory	Type	Description
tracks_info	No	Array of TracksInfo objects	Audio track information
audio_files	No	Array of AudioFile objects	Parameters about a single audio file

Parameter	Mandatory	Type	Description
default_language	No	String	Default language tag. The ISO 639-2 encoding format (https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes) is recommended.

Table 8-24 AudioFile

Parameter	Mandatory	Type	Description
tracks_info	No	Array of TracksInfo objects	Audio track information
input	No	ObsObjInfo object	Storage location of an input file

Table 8-25 TracksInfo

Parameter	Mandatory	Type	Description
channel_layout	No	String	Audio channel layout of the audio track
language	No	String	Audio language tag. The ISO 639-2 encoding format (https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes) is recommended.

Table 8-26 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.

Parameter	Mandatory	Type	Description
object	Yes	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Mandatory	Type	Description
file_name	No	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 8-27 VideoProcess

Parameter	Mandatory	Type	Description
hls_init_count	No	Integer	<p>Number of HLS start segments</p> <p>The value ranges from 0 to 10 and defaults to 0.</p> <p>NOTE This parameter is used together with hls_init_interval to specify the duration of the first hls_init_count HLS segments. The value 0 indicates that there are no HLS start segments.</p>
hls_init_interval	No	Integer	<p>Duration of the first hls_init_count HLS segments</p> <p>The value ranges from 2 to 10 and defaults to 5.</p> <p>NOTE This parameter is valid only when the value of hls_init_count is not 0.</p>
hls_storage_type	No	String	<p>HLS media streams storage</p> <ul style="list-style-type: none"> • composite: stored in the same file • separate: stored in different files
rotate	No	Integer	<p>Clockwise rotation angle of a video.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: Do not rotate. • 1: Rotate a video by 90 degrees clockwise. • 2: Rotate a video by 180 degrees clockwise. • 3: Rotate a video by 270 degrees clockwise.
adaptation	No	String	<p>Adaptive resolution.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • SHORT: adaptive width • LONG: adaptive height • NONE: non-adaptive

Parameter	Mandatory	Type	Description
fill_type	No	String	<p>This parameter is valid only when adaptation is set to NONE.</p> <ul style="list-style-type: none"> • stretch: stretches each frame to fill the entire output frame. • black: keeps the aspect ratio of the video unchanged and fill the remaining edges with black. • white: keeps the aspect ratio of the video unchanged and fill the remaining edges with white.
upsample	No	Integer	<p>Whether to enable upsampling, for example, converting a 480p video source to 720p.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 0: disables upsampling. • 1: enables upsampling. If upsampling is enabled, the video width and height must meet the configuration requirements of the width and height fields in the video parameter and cannot exceed the value ranges of the width and height.
hls_segment_type	No	String	<p>HLS segment type.</p> <p>Options:</p> <ul style="list-style-type: none"> • mpegts: TS • fmp4: fMP4 <p>If this parameter is not specified, TS segments are used by default.</p>

Table 8-28 AudioProcess

Parameter	Mandatory	Type	Description
volume	No	String	Adjusts volume. The options are as follows: <ul style="list-style-type: none"> • auto: The volume is automatically adjusted. • dynamic: The volume is manually adjusted. You need to set the allowed adjustment range. • original: The volume is not adjusted.
volume_expr	No	Integer	Volume adjustment amplitude. This parameter is used only when volume is set to dynamic . The value ranges from -15 to 15. Unit: dB

Table 8-29 FileMetaData

Parameter	Mandatory	Type	Description
name	No	String	Metadata name.
value	No	String	Metadata value.

Response Parameters

Status code: 202

Table 8-30 Response body parameters

Parameter	Type	Description
task_id	Integer	Task ID generated after the task is accepted. Transcoding task IDs start at 1. After reaching 2,146,483,647, the sequence resets to 1. Therefore, this ID should not be used as a unique identifier.

Status code: 403

Table 8-31 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates a video transcoding task.

```
POST https://{endpoint}/v1/{project_id}/transcodings
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "trans_template_id" : [ 1002, 1003, 1004, 1005 ],
  "priority" : "9",
  "subtitle" : {
    "subtitle_type" : 1,
    "input" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-subtitle.srt"
    }
  },
  "encryption" : {
    "hls_encrypt" : {
      "iv" : "*****",
      "key" : "*****",
      "url" : "http://{your-keyserver}",
      "algorithm" : "AES-128-CBC"
    }
  },
  "thumbnail" : {
    "out" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example/path"
    }
  },
  "tar" : 1,
  "params" : {
    "time" : 2,
    "format" : 1,
    "max_length" : 480
  }
}
```

Example Responses

Status code: 202

Transcoding task created successfully.

```
{  
  "task_id" : 100211  
}
```

Status code: 403

Failed to create a transcoding task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter"  
}
```

Status Codes

Status Code	Description
202	Transcoding task created successfully.
403	Failed to create a transcoding task.

Error Codes

See [Error Codes](#).

8.2 Canceling a Transcoding Task

Function

This API is used to cancel a transcoding task.

You can only cancel the queuing transcoding tasks. A transcoding task that has started or completed cannot be canceled.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTask:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/transcodings

Table 8-32 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 8-33 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	Integer	Task ID returned when a transcoding task is successfully created

Request Parameters

Table 8-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Transcoding task canceled successfully.

Status code: 400

Table 8-35 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/transcodings?task_id=100211
```

Example Responses

Status code: 400

Failed to cancel the transcoding task.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

Status Codes

Status Code	Description
204	Transcoding task canceled successfully.
400	Failed to cancel the transcoding task.

Error Codes

See [Error Codes](#).

8.3 Querying Transcoding Tasks

Function

This API is used to query one or more transcoding tasks.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTask:view	Read	-	-	-	-

URI

GET /v1/{project_id}/transcodings

Table 8-36 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 8-37 Query Parameters

Parameter	Mandatory	Type	Description
task_id	No	Array of longs	Task ID. A maximum of 10 transcoding task IDs can be queried at a time.
status	No	String	Task execution status Possible options are: <ul style="list-style-type: none"> • WAITING: pending • TRANSCODING: executing • SUCCEEDED: completed • FAILED: failed • CANCELED: deleted • NEED_TO_BE_AUDIT: pending for review
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.
end_time	No	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 8-38 Request header parameters

Parameter	Mandatory	Type	Description
x-language	No	String	Client language.
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 8-39 Response body parameters

Parameter	Type	Description
task_array	Array of QueryTranscodingsTaskResponse objects	Returned task group details.

Parameter	Type	Description
is_truncated	Integer	Whether the query results are truncated. Possible values: <ul style="list-style-type: none"> • 1: Query results are truncated. Some results are not returned. You can configure the page and size parameters to continue the query. • 0: Query results are not truncated. All results are returned.
total	Integer	Number of records

Table 8-40 QueryTranscodingsTaskResponse

Parameter	Type	Description
task_id	String	Task ID
status	String	Task execution status. The options include: <ul style="list-style-type: none"> • NO_TASK: no task • WAITING: pending • TRANSCODING**: transcoding • SUCCEEDED: successful • FAILED: failed • CANCELED: deleted • NEED_TO_BE_AUDIT: pending for review
progress	Integer	Task execution progress, in percentage. The value range is [0, 100]. 0 is returned by default for users not in the whitelist, and a valid value is returned for whitelisted users. If you need to be added to the whitelist, contact technical support.
create_time	String	Task start time
end_time	String	Task end time
trans_template_id	Array of integers	ID of transcoding templates
input	ObsObjInfo object	Storage location of an input file. The information includes the location, bucket name, and path.

Parameter	Type	Description
output	ObsObjInfo object	Storage location of an output file. The information includes the location, bucket name, and path.
output_file_name	Array of strings	Name of the output file. The value is of the array type and may contain multiple names, including snapshot names.
user_data	String	Custom user data
error_code	String	Status code of a transcoding task
description	String	Task description. If an error occurs in a transcoding task, this field indicates the error cause.
tips	String	Message displayed if the audio sampling rate is too low
transcode_detail	TranscodeDetail object	Output information of snapshots
thumbnail_output	ObsObjInfo object	Output information of snapshots. The information includes the location, bucket name, and path.
thumbnail_output_name	String	Name of the snapshot package
pic_info	Array of PicInfo objects	Snapshot file information
thumbnails_info	Array of ThumbnailsInfo objects	Snapshot file information.
image_sprite_info	Array of ImageSpriteInfo objects	Image sprite information, which is an array. A maximum of 20 members are supported.
av_parameters	Array of AvParameters objects	Transcoding parameter If both trans_template_id and this parameter are configured, this parameter is preferentially used for transcoding.
additional_manifests	Array of AdditionalManifests objects	Customized parameter for the primary index.
metadata	Array of FileMetaData objects	Metadata of the output file.

Table 8-41 TranscodeDetail

Parameter	Type	Description
multitask_info	Array of MultiTaskInfo objects	Details about failed transcoding in the case of one-in and multiple-out
input_file	SourceInfo object	Input file information
replace_sub_index	Array of strings	Sub-index file to be replaced

Table 8-42 MultiTaskInfo

Parameter	Type	Description
template_id	Integer	Template ID
error	ErrorResponse object	Error message about failed transcoding
output_file	SourceInfo object	Information about a single output

Table 8-43 ErrorResponse

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Table 8-44 SourceInfo

Parameter	Type	Description
duration	Integer	Duration of an input file Unit: second
duration_ms	Long	Duration of an input file Unit: ms
format	String	File format
size	Long	Size of an input file
manifest_name	String	Independent MPD index file name

Parameter	Type	Description
md5	String	MD5 value of the video. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled. You need to submit a service ticket to enable it.
video_info	VideInfo object	Video information
audio_info	Array of AudioInfo objects	Audio information

Table 8-45 VideInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate. Unit: kbit/s NOTE On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"> • Before: If sync in a synchronous video parsing task is set to 1, the unit of bitrate in VideInfo of the response is bit/s. • After: In a synchronous video parsing task, the unit of bitrate in VideInfo of the response is changed to kbit/s. The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly.
bitrate_bps	Long	Video bitrate Unit: bit/s

Parameter	Type	Description
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
codec	String	Video codec
dynamic_range	String	<p>Dynamic range type of an input file.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • SDR • HDR10 • CUVA_HDR
duration	String	<p>Video stream duration, in seconds.</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
duration_ms	String	<p>Video stream duration, in milliseconds</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
rotate	Float	<p>Video shooting angle, in degrees.</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>

Table 8-46 AudiInfo

Parameter	Type	Description
codec	String	Audio codec

Parameter	Type	Description
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate Unit: kbit/s
bitrate_bps	Long	Audio bitrate Unit: bit/s
duration	String	Audio stream duration, in seconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.
duration_ms	String	Audio stream duration, in milliseconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Table 8-47 ThumbnailsInfo

Parameter	Type	Description
pic_info	Array of PicInfo objects	Snapshot file information.
output	ObsObjInfo object	Output file information.
output_name	String	Name of the snapshot package.

Table 8-48 PicInfo

Parameter	Type	Description
pic_name	String	Snapshot file name

Table 8-49 ImageSpriteInfo

Parameter	Type	Description
row_count	Integer	Number of rows of sub-images in the image sprite.
column_count	Integer	Number of columns of sub-images in the image sprite.
total_count	Integer	Number of sub-images in the image sprite.
width	Integer	Width of the sub-images in the image sprite.
height	Integer	Height of the sub-images in the image sprite.
output_image_name	Array of strings	Path of each image sprite.
output_webvtt_name	String	Path of the WebVTT file that describes the mapping between the positions of sub-images in the image sprite and video timestamps. The WebVTT file specifies the timestamps for each sub-image within the image sprite and defines their coordinates. Generally, the WebVTT file is used by players to implement previews.
output	ObsObjInfo object	Output file information.

Table 8-50 AvParameters

Parameter	Type	Description
video	VideoParameters object	Video parameters
audio	Audio object	Audio parameters
common	Common object	Common parameters
output	ObsObjInfo object	Output path. If this parameter is not set, the output is stored together with the outer transcoded output. Note: For HLS multiple outputs, if the path of each output is different, index.m3u8 is unavailable, and audio and video separation is unavailable.

Parameter	Type	Description
output_filename	String	Output file name.

Table 8-51 VideoParameters

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: VIDEO_CODEC_H264 • 2: VIDEO_CODEC_H265
crf	Object	<p>Factor for controlling the constant video bitrate.</p> <p>The value range is [0, 51].</p>

Parameter	Type	Description
max_bitrate	Integer	<p>Maximum output bitrate.</p> <p>The value can be 0 or an integer from 40 to 800,000.</p> <p>Unit: kbit/s</p> <p>This field is used when the Constant Rate Factor (CRF) is used. The value is generally set to 1.5 times of the average bitrate of the source file.</p>
bitrate	Integer	<p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 50,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to 0, the average output bitrate is an adaptive value.</p>
buf_size	Integer	<p>Buffer size.</p> <p>The value can be 0 or an integer from 40 to 800,000.</p> <p>Unit: kbit</p>
profile	Integer	<p>Encoding profile.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"> • 0: AUTO • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>The options include:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_SPEED (fast encoding) • 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding). • 4: VIDEO_PRESET_QUALITY (quality encoding). • 5: VIDEO_PRESET_BALANCE (balanced encoding) <p>The default value is 1.</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	<p>Maximum B-frame interval.</p> <p>Range</p> <ul style="list-style-type: none"> • H.264: The value ranges from 0 to 8. The default value is 4. • H.265: The value ranges from 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 (adaptive) or ranges from 5 to 60.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
width	Integer	<p>Video width, in pixels</p> <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 4,096. • H.265: The value is a multiple of 2 from 320 to 4,096.
height	Integer	<p>Video height, in pixels</p> <ul style="list-style-type: none"> • H.264: The value is a multiple of 2 from 32 to 2,880. • H.265: The value is a multiple of 2 from 240 to 2,880.
black_cut	Integer	<p>Whether to enable black bar removal.</p> <ul style="list-style-type: none"> • 0: disables black bar removal • 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes • 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes
stream_name	String	Stream name

Table 8-52 Audio

Parameter	Type	Description
output_policy	String	<p>Output policy:</p> <ul style="list-style-type: none"> • If output_policy is set to discard in video parameters and transcode in audio parameters, only audio is output. • If output_policy is set to transcode in video parameters and to discard in audio parameters, only video is output. • If output_policy is set to copy in video parameters, the original video is copied without codec. • If output_policy is set to copy in audio parameters, the original audio is copied without codec. • output_policy cannot be set to discard in video and audio parameters at the same time. • If output_policy is set to transcode in video and video parameters at the same time, video and audio are output. <p>The options are as follows:</p> <ul style="list-style-type: none"> • discard • transcode • copy
codec	Integer	<p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3

Parameter	Type	Description
sample_rate	Integer	<p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz) <p>NOTE When the encoding format is MP3, the audio sampling ratio cannot be 6.</p>
bitrate	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Integer	<p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 (mono) • 2: AUDIO_CHANNELS_2 (stereo) • 6: AUDIO_CHANNELS_5_1 (5.1 surround sound) <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>

Table 8-53 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low-bitrate HD The options are as follows: <ul style="list-style-type: none"> • false: disabled (This function is disabled by default.) • true: enabled (The value 0 indicates that the function is disabled. Other positive integers and negative values indicate true .)
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3 . Value range: [2,10] Unit: second
dash_interval	Integer	DASH segment duration. This parameter is used only when pack_type is set to 2 or 3 . Value range: [2,10] Unit: second
pack_type	Integer	Container format. The options include: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS • 8: MOV • 9: FLV • 10: AVI NOTE If pack_type is set to 5 or 6 , do not configure video parameters. If pack_type is set to 9 , multi-audio is not supported. If pack_type is set to 10 , H.265 encoding is not supported.

Table 8-54 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Type	Description
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 8-55 AdditionalManifests

Parameter	Type	Description
manifest_name_modifier	String	Customized index file name extension
selected_outputs	Array of strings	Name of the selected stream

Table 8-56 FileMetaData

Parameter	Type	Description
name	String	Metadata name.
value	String	Metadata value.

Status code: 400

Table 8-57 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/transcodings?task_id=22123973
```

Example Responses

Status code: 200

Transcoding task queried successfully.

```
{
  "is_truncated" : 0,
  "total" : 1,
  "task_array" : [ {
    "task_id" : 22123973,
    "status" : "SUCCEEDED",
    "create_time" : 20200310031605,
    "end_time" : 20200310031623,
    "trans_template_id" : [ 4 ],
    "input" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-input.mp4"
    },
    "output" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-output.mp4"
    },
    "output_file_name" : [ "example_480X270.m3u8" ],
    "transcode_detail" : {
      "multitask_info" : [ {
        "template_id" : 4,
        "output_file" : {
          "duration" : 59,
          "duration_ms" : 0,
          "format" : "HLS",
          "size" : 2180,
          "video_info" : {
            "width" : 480,
            "height" : 270,
```

```
    "bitrate" : 231,  
    "bitrate_bps" : 0,  
    "frame_rate" : 25000,  
    "codec" : "H264"  
  },  
  "audio_info" : [ {  
    "codec" : "HEAAC",  
    "sample" : 44100,  
    "channels" : 2,  
    "bitrate" : 64,  
    "bitrate_bps" : 0  
  } ]  
},  
"input_file" : {  
  "duration" : 59,  
  "duration_ms" : 0,  
  "format" : "MOV",  
  "size" : 2494653,  
  "video_info" : {  
    "width" : 480,  
    "height" : 270,  
    "bitrate" : 199,  
    "bitrate_bps" : 0,  
    "frame_rate" : 25000,  
    "codec" : "HEVC"  
  },  
  "audio_info" : [ {  
    "codec" : "AAC",  
    "sample" : 48000,  
    "channels" : 2,  
    "bitrate" : 128,  
    "bitrate_bps" : 0  
  } ]  
}  
} ]  
}
```

Status code: 400

Failed to query the transcoding task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter"  
}
```

Status Codes

Status Code	Description
200	Transcoding task queried successfully.
400	Failed to query the transcoding task.

Error Codes

See [Error Codes](#).

8.4 Deletes Transcoding Task Records

Function

Deletes transcoding task records. Only transcoding task records in the **Canceled**, **Completed**, or **Failed** status can be deleted.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTask:deleteRecord	Write	-	-	-	-

URI

DELETE /v1/{project_id}/transcodings/task

Table 8-58 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 8-59 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	Integer	Specifies the task ID.

Request Parameters

Table 8-60 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

The transcoding task record has been deleted.

Status code: 400

Table 8-61 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/transcodings/task?task_id=100211
```

Example Responses

Status code: 400

The transcoding task record cannot be deleted.

```
{  
  "error_code" : "MPC.10213",  
  "error_msg" : "Operation failed. The task is not in the final state."  
}
```

Status Codes

Status Code	Description
204	The transcoding task record has been deleted.
400	The transcoding task record cannot be deleted.

Error Codes

See [Error Codes](#).

8.5 Queries Task Overview

Function

Queries the task duration statistics of the past week, past month, or a user-defined time period.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:transcodeTask:viewSummaryStatistics	List	-	-	-	-

URI

GET /v1/{project_id}/transcodings/summaries

Table 8-62 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 8-63 Query Parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	Start time. The format is yyyyymmdd. The value must be a UTC time irrelevant to the time zone.
end_time	Yes	String	End time. The format is yyyyymmdd. The value must be a UTC time irrelevant to the time zone.

Parameter	Mandatory	Type	Description
stat_type	Yes	String	Specifies the statistics type. The options are as follows: <ul style="list-style-type: none"> • video_duration: duration of the transcoded media file, in minutes • remux_file_duration: duration of the packaged media file, in minutes • transcode_task_number: number of transcoding times • transcode_duration: transcoding duration, in minutes

Request Parameters

Table 8-64 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 8-65 Response body parameters

Parameter	Type	Description
summary	Array of StatSummary objects	Statistics overview
total	Float	Indicates the total value of the metric. The value is accurate to two decimal places.
stat_type	String	Specifies the statistics type. The options are as follows: <ul style="list-style-type: none"> video_duration: duration of the transcoded media file, in minutes remux_file_duration: duration of the packaged media file, in minutes transcode_task_number: number of transcoding times transcode_duration: transcoding duration, in minutes

Table 8-66 StatSummary

Parameter	Type	Description
value	Float	The value is accurate to two decimal places.
date	String	Date, accurate to day. Format example: 2018/03/01.

Status code: 400

Table 8-67 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/transcodings/summaries?  
start_time=20221119&end_time=20221125&stat_type=transcode_task_number
```

Example Responses

Status code: 200

Transcoding overview information has been queried.

```
{  
  "stat_type": "transcode_task_number",  
  "total": 5.0,  
  "summary": [ {  
    "value": "2.0",  
    "date": "2022/11/25"  
  }, {  
    "value": "3.0",  
    "date": "2022/11/25"  
  } ]  
}
```

Status code: 400

Transcoding overview information cannot be queried.

```
{  
  "error_code": "MPC.10202",  
  "error_msg": "Invalid request parameter, start_time cannot be greater than end_time."  
}
```

Status Codes

Status Code	Description
200	Transcoding overview information has been queried.
400	Transcoding overview information cannot be queried.

Error Codes

See [Error Codes](#).

9 Packaging APIs

9.1 Creating a Packaging Task

Function

This API is used to create a packaging task. Packaging is to convert the container format of audio and video files without changing the resolution and bitrate.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:remux Tsk:create	Write	-	-	-	-

URI

POST /v1/{project_id}/remux

Table 9-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 9-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 9-3 Request body parameters

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Input file information. NOTE Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing.
output	No	ObsObjInfo object	Output file information

Parameter	Mandatory	Type	Description
user_data	No	String	Custom user data
output_param	No	RemuxOutputParam object	Output parameter.

Table 9-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	Yes	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Mandatory	Type	Description
file_name	No	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 9-5 RemuxOutputParam

Parameter	Mandatory	Type	Description
format	No	String	Output file format. Possible values: <ul style="list-style-type: none"> • HLS • MP4
segment_duration	No	Integer	Segment duration. This parameter is used only when format is HLS . The value ranges from 2 to 10. Default value: 5 Unit: second NOTE If the segment duration is not within the value range, the value is automatically changed to 5.
remove_meta	No	Boolean	Whether to remove the custom metadata of the input media from the output media. Default value: false .

Response Parameters

Status code: 200

Table 9-6 Response body parameters

Parameter	Type	Description
task_id	String	Task ID.

Status code: 400

Table 9-7 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates a packaging task to convert the format of media files without changing their resolution and bitrate.

```
POST https://{endpoint}/v1/{project_id}/remux
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.flv"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output",
    "file_name" : "test.m3u8"
  },
  "output_param" : {
    "format" : "HLS",
    "segment_duration" : 7
  }
}
```

Example Responses

Status code: 200

Packaging task created successfully.

```
{
  "task_id" : 100211
}
```

Status code: 400

Failed to create a packaging task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
200	Packaging task created successfully.
400	Failed to create a packaging task.

Error Codes

See [Error Codes](#).

9.2 Retrying a Packaging Task

Function

This API is used to retry a failed packaging task.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:remux Tsk:retry	Write	-	-	-	-

URI

PUT /v1/{project_id}/remux

Table 9-8 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 9-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 9-10 Request body parameters

Parameter	Mandatory	Type	Description
task_id	No	String	Specifies the task ID.

Response Parameters

Status code: 200

Packaging task retried successfully.

Status code: 403

Table 9-11 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Retries a packaging task.

```
PUT https://{endpoint}/v1/{project_id}/remux
{
  "task_id" : "538526"
}
```

Example Responses

Status code: 403

Failed to retry the packaging task.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

Status Codes

Status Code	Description
200	Packaging task retried successfully.
403	Failed to retry the packaging task.

Error Codes

See [Error Codes](#).

9.3 Querying Packaging Tasks

Function

This API is used to query one or more packaging tasks.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:remux Tsk:view	List	-	-	-	-

URI

GET /v1/{project_id}/remux

Table 9-12 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 9-13 Query Parameters

Parameter	Mandatory	Type	Description
task_id	No	Array of strings	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialized • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.
input_bucket	No	String	Input bucket
input_object	No	String	Input object name
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 9-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.

Parameter	Mandatory	Type	Description
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 9-15 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks
tasks	Array of RemuxTask objects	Tasks.

Table 9-16 RemuxTask

Parameter	Type	Description
task_id	String	Task ID.
status	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialized • WAITING: pending • PROCESSING: running • SUCCEED: successful • FAILED: failed • CANCELED: canceled
create_time	String	Task creation time.
start_time	String	Task start time.
end_time	String	Task end time.
error_code	String	Return code of a task
description	String	Error description.
user_data	String	User data.
input	ObsObjInfo object	Input file information.

Parameter	Type	Description
output	ObsObjInfo object	Output file information.
output_param	RemuxOutputParam object	Output parameter.
complete_ratio	Integer	Progress of a task, in percentage.
output_metadata	MetaData object	Metadata of the output file.

Table 9-17 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Type	Description
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 9-18 RemuxOutputParam

Parameter	Type	Description
format	String	<p>Output file format. Possible values:</p> <ul style="list-style-type: none"> HLS MP4

Parameter	Type	Description
segment_duration	Integer	Segment duration. This parameter is used only when format is HLS . The value ranges from 2 to 10. Default value: 5 Unit: second NOTE If the segment duration is not within the value range, the value is automatically changed to 5.
remove_meta	Boolean	Whether to remove the custom metadata of the input media from the output media. Default value: false .

Table 9-19 MetaData

Parameter	Type	Description
size	Long	File size Unit: byte
duration_ms	Double	Video duration, with decimal places Unit: second
duration	Long	Video duration Unit: second
format	String	File container format
md5	String	MD5 value of the video. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled. You need to submit a service ticket to enable it.
bitrate	Long	Total bitrate Unit: bit/s
video	Array of Videoinfo objects	Video metadata
audio	Array of Audiainfo objects	Audio metadata

Table 9-20 VideoInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	<p>Video bitrate. Unit: kbit/s</p> <p>NOTE On August 7, 2024, the following modification was made on the video parsing API:</p> <ul style="list-style-type: none"> • Before: If sync in a synchronous video parsing task is set to 1, the unit of bitrate in VideoInfo of the response is bit/s. • After: In a synchronous video parsing task, the unit of bitrate in VideoInfo of the response is changed to kbit/s. <p>The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly.</p>
bitrate_bps	Long	<p>Video bitrate Unit: bit/s</p>
frame_rate	Integer	<p>Frame rate. The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate. Unit: FPS</p> <p>NOTE If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
codec	String	Video codec
dynamic_range	String	<p>Dynamic range type of an input file. Possible values:</p> <ul style="list-style-type: none"> • SDR • HDR10 • CUVA_HDR

Parameter	Type	Description
duration	String	Video stream duration, in seconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.
duration_ms	String	Video stream duration, in milliseconds NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.
rotate	Float	Video shooting angle, in degrees. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Table 9-21 AudioInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate Unit: kbit/s
bitrate_bps	Long	Audio bitrate Unit: bit/s
duration	String	Audio stream duration, in seconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Parameter	Type	Description
duration_ms	String	Audio stream duration, in milliseconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Status code: 400

Table 9-22 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

GET https://{endpoint}/v1/{project_id}/remux?task_id=10743

Example Responses

Status code: 200

Packaging task queried successfully.

```
{
  "total": 1,
  "tasks": [ {
    "task_id": 10743,
    "error_code": "MPC.10218",
    "status": "SUCCEED",
    "create_time": 20201117021558,
    "start_time": 20201117021558,
    "end_time": 20201117021559,
    "description": "The task has completed.",
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/input.flv"
    },
    "output": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/output.mp4",
      "file_name": "bf00ba898a3dfb3560a292fd87f790db.mp4"
    },
    "user_data": 1795687,
    "output_param": {
      "format": "MP4",
      "segment_duration": 5,
      "remove_meta": false
    },
    "complete_ratio": 100,
  }
  ]
}
```

```
"output_metadata" : {  
  "size" : 3189068,  
  "duration_ms" : 25.48,  
  "duration" : 25,  
  "format" : "mp4",  
  "bitrate" : 977,  
  "video" : [ {  
    "width" : 1920,  
    "height" : 1080,  
    "bitrate" : 977,  
    "bitrate_bps" : 1001277,  
    "frame_rate" : 25,  
    "codec" : "H.264"  
  } ],  
  "audio" : [ {  
    "sample" : 48000,  
    "channels" : 2,  
    "bitrate" : 0,  
    "bitrate_bps" : 0  
  } ]  
}
```

Status code: 400

Failed to query the packaging task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
200	Packaging task queried successfully.
400	Failed to query the packaging task.

Error Codes

See [Error Codes](#).

9.4 Canceling a Packaging Task

Function

This API is used to cancel a packaging task. Only tasks in the queue can be canceled.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:remux Tsk:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/remux

Table 9-23 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 9-24 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 9-25 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Packaging task canceled successfully.

Status code: 400

Table 9-26 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/remux?task_id=100211
```

Example Responses

Status code: 400

Failed to cancel the packaging task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
204	Packaging task canceled successfully.
400	Failed to cancel the packaging task.

Error Codes

See [Error Codes](#).

9.5 Deletes Packaging Task Records

Function

Deletes packaging task records. Only packaging task records in the **Canceled**, **Completed**, or **Failed** status can be deleted.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:remux Tsk:deleteRecord	Write	-	-	-	-

URI

DELETE /v1/{project_id}/remux/task

Table 9-27 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 9-28 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Specifies the task ID.

Request Parameters

Table 9-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

The packaging task record has been deleted.

Status code: 403

Table 9-30 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/remux/task?task_id=100211
```

Example Responses

Status code: 403

The packaging task record cannot be deleted.

```
{
  "error_code" : "MPC.10211",
  "error_msg" : "The task does not exist."
}
```

Status Codes

Status Code	Description
204	The packaging task record has been deleted.
403	The packaging task record cannot be deleted.

Error Codes

See [Error Codes](#).

10 Animated GIF APIs

10.1 Creating an Animated GIF Task

Function

This API is used to create an animated GIF task to convert a complete video file or part of a video file into an animated GIF file.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:animatedGraphicsTask:create	Write	-	-	-	-

URI

POST /v1/{project_id}/animated-graphics

Table 10-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 10-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 10-3 Request body parameters

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Input file information. NOTE Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing.
output	No	ObsObjInfo object	Output file information
user_data	No	String	Custom user data
output_param	No	AnimatedGraphicsOutputParam object	Animated GIF parameter.

Table 10-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	Yes	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Mandatory	Type	Description
file_name	No	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 10-5 AnimatedGraphicsOutputParam

Parameter	Mandatory	Type	Description
format	Yes	String	Format of an output file. Currently, only GIF format is supported.
width	Yes	Integer	Width of an output animated file The value is -1, 0, or a multiple of 2 from 32 to 3,840. NOTE <ul style="list-style-type: none"> If this parameter is set to -1, width is adjusted based on height. In this case, height cannot be -1 or 0. If this parameter is set to 0, the width of the input video is used. In this case, height can only be 0.
height	Yes	Integer	Height of an output animated file The value is -1, 0, or a multiple of 2 from 32 to 2,160. NOTE <ul style="list-style-type: none"> If this parameter is set to -1, height is adjusted based on width. In this case, width cannot be -1 or 0. If this parameter is set to 0, the height of the input video is used. In this case, width can only be 0.
start	Yes	Integer	Start time Unit: ms
end	Yes	Integer	End time Unit: ms The maximum difference between end and start is 60 seconds.
frame_rate	No	Integer	Frame rate of the animated GIF. Value range: 1 to 75

Response Parameters

Status code: 200

Table 10-6 Response body parameters

Parameter	Type	Description
task_id	String	Task ID.

Status code: 400

Table 10-7 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates an animated GIF task to convert a complete video file or part of a video file into an animated GIF file.

```
POST https://{endpoint}/v1/{project_id}/animated-graphics
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output",
    "file_name" : "test_mpc.gif"
  },
  "output_param" : {
    "format" : "gif",
    "width" : 480,
    "height" : 360,
    "frame_rate" : 15,
    "start" : 100,
    "end" : 250
  }
}
```

Example Responses

Status code: 200

Animated GIF task created successfully.

```
{
  "task_id" : 100211
}
```

Status code: 400

Failed to create an animated GIF task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
200	Animated GIF task created successfully.
400	Failed to create an animated GIF task.

Error Codes

See [Error Codes](#).

10.2 Querying Animated GIF Tasks

Function

This API is used to query one or more animated GIF tasks.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:animatedGraphicsTask:view	List	-	-	-	-

URI

GET /v1/{project_id}/animated-graphics

Table 10-8 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 10-9 Query Parameters

Parameter	Mandatory	Type	Description
task_id	No	Array of strings	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.
end_time	No	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 10-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
x-language	No	String	Client language.

Response Parameters

Status code: 200

Table 10-11 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks
tasks	Array of AnimatedGraphicsTask objects	Tasks.

Table 10-12 AnimatedGraphicsTask

Parameter	Type	Description
task_id	String	Task ID.
status	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialized • WAITING: pending • PROCESSING: running • SUCCEED: successful • FAILED: failed • CANCELED: canceled
create_time	String	Task creation time.
start_time	String	Task start time.
end_time	String	Task end time.
error_code	String	Return code of a task
description	String	Error description.
user_data	String	User data.
input	ObsObjInfo object	Input file information.
output	ObsObjInfo object	Output file information.
output_param	AnimatedGraphicsOutputParam object	Animated GIF parameter.

Table 10-13 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.

Parameter	Type	Description
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 10-14 AnimatedGraphicsOutputParam

Parameter	Type	Description
format	String	Format of an output file. Currently, only GIF format is supported.
width	Integer	Width of an output animated file The value is -1, 0, or a multiple of 2 from 32 to 3,840. NOTE <ul style="list-style-type: none">If this parameter is set to -1, width is adjusted based on height. In this case, height cannot be -1 or 0.If this parameter is set to 0, the width of the input video is used. In this case, height can only be 0.
height	Integer	Height of an output animated file The value is -1, 0, or a multiple of 2 from 32 to 2,160. NOTE <ul style="list-style-type: none">If this parameter is set to -1, height is adjusted based on width. In this case, width cannot be -1 or 0.If this parameter is set to 0, the height of the input video is used. In this case, width can only be 0.
start	Integer	Start time Unit: ms
end	Integer	End time Unit: ms The maximum difference between end and start is 60 seconds.
frame_rate	Integer	Frame rate of the animated GIF. Value range: 1 to 75

Status code: 400**Table 10-15** Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/animated-graphics?task_id=30647
```

Example Responses

Status code: 200

Animated GIF task queried successfully.

```
{
  "total": 1,
  "tasks": [ {
    "task_id": 30647,
    "error_code": "MPC.10218",
    "status": "SUCCEED",
    "create_time": 20201119103652,
    "start_time": 20201119103653,
    "end_time": 20201119103708,
    "description": "The task has completed.",
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/input.mp4"
    },
    "output": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/output",
      "file_name": "file_001.gif"
    },
    "output_param": {
      "format": "gif",
      "width": 100,
      "height": 50,
      "start": 0,
      "end": 10000,
      "frame_rate": 15
    }
  }
}]
```

Status code: 400

Failed to query the animated GIF task.

```
{
  "error_code": "MPC.10202",
  "error_msg": "Invalid request parameter."
}
```

Status Codes

Status Code	Description
200	Animated GIF task queried successfully.
400	Failed to query the animated GIF task.

Error Codes

See [Error Codes](#).

10.3 Canceling an Animated GIF Task

Function

This API is used to cancel an animated GIF task. Only tasks in the queue can be canceled.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:animatedGraphicsTask:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/animated-graphics

Table 10-16 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 10-17 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 10-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Animated GIF task canceled successfully.

Status code: 400

Table 10-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

DELETE https://{endpoint}/v1/{project_id}/animated-graphics?task_id=100211

Example Responses

Status code: 400

Failed to cancel the animated GIF task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
204	Animated GIF task canceled successfully.
400	Failed to cancel the animated GIF task.

Error Codes

See [Error Codes](#).

11 Video Metadata Extraction APIs

11.1 Creating a Video Parsing Task

Function

This API is used to create a task to parse the metadata of a video file.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:extractTask:create	Write	-	-	-	-

URI

POST /v1/{project_id}/extract-metadata

Table 11-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 11-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 11-3 Request body parameters

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Input file information. NOTE Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing.
output	No	ObsObjInfo object	Output file information

Parameter	Mandatory	Type	Description
user_data	No	String	Custom user data
sync	No	Integer	<p>Whether to enable synchronous processing.</p> <ul style="list-style-type: none"> • 0: Synchronous processing is not enabled. Video metadata is not synchronized. It is queued for processing. • 1: Synchronous processing is enabled. Video metadata is synchronized. <p>Default value: 0</p>
encryption	No	Encryption object	Video encryption parameter.

Table 11-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	Yes	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Mandatory	Type	Description
file_name	No	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 11-5 Encryption

Parameter	Mandatory	Type	Description
hls_encrypt	No	HlsEncrypt object	Encryption parameters for HLS videos

Table 11-6 HlsEncrypt

Parameter	Mandatory	Type	Description
key	Yes	String	Base64-encoded content encryption key
url	Yes	String	The key carries the service address, and can be decrypted to play HLS segments.
iv	No	String	Initial vector, which is a random number in base64Binary format
algorithm	No	String	Encryption algorithm. Possible values: <ul style="list-style-type: none"> ● AES-128-CTR ● AES-128-CBC Default value: AES-128-CTR

Response Parameters

Status code: 200

Table 11-7 Response body parameters

Parameter	Type	Description
task_id	String	Task ID.
status	String	Task execution status. The options include: <ul style="list-style-type: none"> ● INIT: initial state ● WAITING: pending ● PREPROCESSING: ongoing ● SUCCEEDED: successful ● FAILED: failed ● CANCELED: canceled
create_time	String	Task creation time.
output	ObsObjInfo object	Output file information.
output_file_name	String	Output file name.
description	String	Task description. If a task is abnormal, this parameter indicates error details.
metadata	MetaData object	Metadata of a video file.

Table 11-8 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none">• If this parameter is used for an input, an object must be specified.• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none">• Correct example: demo.srt• Incorrect example: [demo.srt

Parameter	Type	Description
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 11-9 MetaData

Parameter	Type	Description
size	Long	File size Unit: byte
duration_ms	Double	Video duration, with decimal places Unit: second
duration	Long	Video duration Unit: second
format	String	File container format

Parameter	Type	Description
md5	String	MD5 value of the video. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled. You need to submit a service ticket to enable it.
bitrate	Long	Total bitrate Unit: bit/s
video	Array of Videoinfo objects	Video metadata
audio	Array of AudioInfo objects	Audio metadata

Table 11-10 Videoinfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate. Unit: kbit/s NOTE On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"> • Before: If sync in a synchronous video parsing task is set to 1, the unit of bitrate in Videoinfo of the response is bit/s. • After: In a synchronous video parsing task, the unit of bitrate in Videoinfo of the response is changed to kbit/s. The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly.
bitrate_bps	Long	Video bitrate Unit: bit/s

Parameter	Type	Description
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
codec	String	Video codec
dynamic_range	String	<p>Dynamic range type of an input file.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • SDR • HDR10 • CUVA_HDR
duration	String	<p>Video stream duration, in seconds.</p> <p>NOTE</p> <p>This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
duration_ms	String	<p>Video stream duration, in milliseconds</p> <p>NOTE</p> <p>This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
rotate	Float	<p>Video shooting angle, in degrees.</p> <p>NOTE</p> <p>This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>

Table 11-11 AudiInfo

Parameter	Type	Description
codec	String	Audio codec

Parameter	Type	Description
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate Unit: kbit/s
bitrate_bps	Long	Audio bitrate Unit: bit/s
duration	String	Audio stream duration, in seconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.
duration_ms	String	Audio stream duration, in milliseconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Status code: 400

Table 11-12 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Creates a task to parse the metadata of a video file.

POST https://{endpoint}/v1/{project_id}/extract-metadata

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.flv"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
}
```

```
"sync" : 0  
}
```

Example Responses

Status code: 400

Failed to create a video parsing task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
200	Video parsing task created successfully.
400	Failed to create a video parsing task.

Error Codes

See [Error Codes](#).

11.2 Querying Video Parsing Tasks

Function

This API is used to query the status and results of one or more video parsing tasks.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:extract Task:view	List	-	-	-	-

URI

GET /v1/{project_id}/extract-metadata

Table 11-13 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 11-14 Query Parameters

Parameter	Mandatory	Type	Description
task_id	No	Array of strings	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialized • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 11-15 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
x-language	No	String	Client language.

Response Parameters

Status code: 200

Table 11-16 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks
tasks	Array of ExtractTask objects	Tasks.

Table 11-17 ExtractTask

Parameter	Type	Description
task_id	String	Task ID.
status	String	Task status. Possible values: <ul style="list-style-type: none"> • INIT: initialized • WAITING: pending • PROCESSING: running • SUCCEED: successful • FAILED: failed • CANCELED: canceled
create_time	String	Task creation time.
start_time	String	Task start time.
end_time	String	Task end time.
error_code	String	Return code of a task
description	String	Error description.
user_data	String	User data.
input	ObsObjInfo object	Input file information.
output	ObsObjInfo object	Output file information.

Parameter	Type	Description
metadata	MetaData object	Output parameter.

Table 11-18 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Type	Description
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 11-19 MetaData

Parameter	Type	Description
size	Long	File size Unit: byte
duration_ms	Double	Video duration, with decimal places Unit: second
duration	Long	Video duration Unit: second
format	String	File container format

Parameter	Type	Description
md5	String	MD5 value of the video. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled. You need to submit a service ticket to enable it.
bitrate	Long	Total bitrate Unit: bit/s
video	Array of Videoinfo objects	Video metadata
audio	Array of AudioInfo objects	Audio metadata

Table 11-20 Videoinfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate. Unit: kbit/s NOTE On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"> • Before: If sync in a synchronous video parsing task is set to 1, the unit of bitrate in Videoinfo of the response is bit/s. • After: In a synchronous video parsing task, the unit of bitrate in Videoinfo of the response is changed to kbit/s. The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly.
bitrate_bps	Long	Video bitrate Unit: bit/s

Parameter	Type	Description
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.</p>
codec	String	Video codec
dynamic_range	String	<p>Dynamic range type of an input file.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • SDR • HDR10 • CUVA_HDR
duration	String	<p>Video stream duration, in seconds.</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
duration_ms	String	<p>Video stream duration, in milliseconds</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>
rotate	Float	<p>Video shooting angle, in degrees.</p> <p>NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.</p>

Table 11-21 AudiInfo

Parameter	Type	Description
codec	String	Audio codec

Parameter	Type	Description
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate Unit: kbit/s
bitrate_bps	Long	Audio bitrate Unit: bit/s
duration	String	Audio stream duration, in seconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.
duration_ms	String	Audio stream duration, in milliseconds. NOTE This field is returned only by the transcoding and parsing APIs. By default, this field is disabled for the parsing API. You need to submit a service ticket to enable it.

Status code: 400

Table 11-22 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/extract-metadata?task_id=7967
```

Example Responses

Status code: 200

Video parsing task queried successfully.

```
{
  "total": 1,
  "tasks": [ {
    "task_id": 7967,
    "status": "SUCCEED",
    "create_time": 20201119103821,
    "start_time": 20201119103822,
```

```
"end_time" : 20201119103827,  
"description" : "The task has completed.",  
"input" : {  
  "bucket" : "example-bucket",  
  "location" : "region01",  
  "object" : "example-path/input.mp4"  
},  
"output" : {  
  "bucket" : "example-bucket",  
  "location" : "region01",  
  "object" : "example-path/output",  
  "file_name" : "video_001.txt"  
},  
"metadata" : {  
  "size" : 43231240,  
  "duration_ms" : 60.186,  
  "duration" : 60,  
  "format" : "MP4",  
  "bitrate" : 5605,  
  "video" : [ {  
    "width" : 3824,  
    "height" : 2152,  
    "bitrate" : 5481,  
    "bitrate_bps" : 5613152,  
    "frame_rate" : 23,  
    "codec" : "H.265"  
  } ],  
  "audio" : [ {  
    "codec" : "AAC",  
    "sample" : 48000,  
    "channels" : 2,  
    "bitrate" : 124,  
    "bitrate_bps" : 127992  
  } ]  
}  
}]  
}
```

Status code: 400

Failed to query the video parsing task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
200	Video parsing task queried successfully.
400	Failed to query the video parsing task.

Error Codes

See [Error Codes](#).

11.3 Canceling a Video Parsing Task

Function

This API is used to cancel a video parsing task. Only tasks in the queue can be canceled.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:extractTask:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/extract-metadata

Table 11-23 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 11-24 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 11-25 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Video parsing task canceled successfully.

Status code: 400

Table 11-26 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

DELETE https://{endpoint}/v1/{project_id}/extract-metadata?task_id=100211

Example Responses

Status code: 400

Failed to cancel the video parsing task.

```
{  
  "error_code" : "MPC.10212",  
  "error_msg" : "Operation failed."  
}
```

Status Codes

Status Code	Description
204	Video parsing task canceled successfully.
400	Failed to cancel the video parsing task.

Error Codes

See [Error Codes](#).

12 Snapshot APIs

12.1 Creating a Snapshot Task

Function

This API is used to create a task for capturing snapshots from the first to the last frame at every set interval.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

Constraints:

Currently, only JPG image files can be generated.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:thumbnailsTask:create	Write	-	-	-	-

URI

POST /v1/{project_id}/thumbnails

Table 12-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 12-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 12-3 Request body parameters

Parameter	Mandatory	Type	Description
input	Yes	ObsObjInfo object	Storage location of an input file

Parameter	Mandatory	Type	Description
output	Yes	ObsObjInfo object	Storage location of an output file
user_data	No	String	Custom user data
thumbnail_param	Yes	ThumbnailParam object	Snapshot parameters
tar	No	Integer	Whether to compress captured snapshots to a TAR package. Possible values: <ul style="list-style-type: none">• 0: Captured snapshots are compressed to a TAR package.• 1: Captured snapshots are not compressed to a TAR package. Default value: 1
sync	No	Integer	Whether to enable synchronous processing. Synchronous processing quickly locates the snapshot position to capture a snapshot. The options are as follows: <ul style="list-style-type: none">• 0: queuing and asynchronous snapshot capturing• 1: synchronous snapshot capturing. Only one snapshot can be captured at each set interval. Default value: 0

Parameter	Mandatory	Type	Description
original_dir	No	Integer	<p>Whether to use the original output directory.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: The original output directory is not used. A random directory is added to the end of the output directory to prevent the snapshot file with the same outputUri from being overwritten. • 1: The original output directory is used. <p>Default value: 0</p>

Table 12-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	Yes	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt

Parameter	Mandatory	Type	Description
file_name	No	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 12-5 ThumbnailPara

Parameter	Mandatory	Type	Description
type	No	String	<p>Sampling type</p> <p>Possible options are:</p> <ul style="list-style-type: none"> • TIME: Snapshots are captured at certain intervals. • DOTS: Snapshots are captured at specific time points. Select this type for single snapshot capture. <p>Default value: TIME</p>
amount	No	Integer	<p>If the black pixel ratio is greater than or equal to this threshold, the frame is classified as a black frame.</p>
threshold	No	Integer	<p>If the pixel value is below this threshold, the pixel is treated as black.</p>
time	No	Integer	<p>Interval for capturing snapshots.</p> <p>Value range: [1,100]. Default value: 12.</p> <p>Unit: second</p>
start_time	No	Integer	<p>Start time for the sampling type set to TIME. This parameter is used together with time.</p> <p>Default value: 0</p> <p>Unit: second</p> <p>NOTE</p> <p>If the value of start_time exceeds the media file duration, frames are not extracted.</p>

Parameter	Mandatory	Type	Description
duration	No	Integer	<p>Capture duration when the sampling type is set to TIME. This parameter is used together with time and start_time, indicating that the first snapshot is captured at the time specified by start_time and snapshots are captured at the interval specified by time until the duration specified by this parameter elapses.</p> <p>Value range: [Number, ToEND]. ToEND indicates that snapshot capturing lasts till the end of the video.</p> <p>Default value: ToEND</p> <p>Unit: second</p> <p>NOTE</p> <p>0 indicates that snapshot capturing lasts from start_time to the end of the video.</p>
dots	No	Array of integers	<p>Array of time points when a snapshot is captured</p> <p>For example, if you enter [1,3,5], the image frames at the first, third, and fifth seconds of the video are captured.</p> <ul style="list-style-type: none"> Asynchronous snapshot capturing: A maximum of 10 time points are supported. Synchronous snapshot capturing: Only one time point is supported.
dots_ms	No	Array of integers	<p>Time point array of snapshot at a specified time in synchronous snapshot mode, in milliseconds.</p> <p>For example, enter [1000] to capture the image frame at the 1000th ms position of the video. Only one time point is allowed.</p>

Parameter	Mandatory	Type	Description
output_filename	No	String	<p>Snapshot file name.</p> <ul style="list-style-type: none"> If only one snapshot is captured (the sampling type is DOTS and only one time point is specified), the output file name is the specified snapshot file name. If multiple snapshots are captured (the sampling type is DOTS and multiple time points are specified or the sampling type is TIME), an output file name contains the specified snapshot file name followed by the time point, for example, output_filename_10.jpg. If you specify the snapshot to be compressed into a TAR package, the output file name is the TAR package name.
format	No	Integer	<p>Snapshot file format.</p> <p>The value is:</p> <p>1: JPG</p>
width	No	Integer	<p>Image width</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> [96,3840] 0: adaptive (the original aspect ratio is retained) <p>Unit: pixel</p>
height	No	Integer	<p>Image height</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> [96,2160] 0: adaptive (the original aspect ratio is retained) <p>Unit: pixel</p>

Parameter	Mandatory	Type	Description
max_length	No	Integer	<p>The longest side of a snapshot. The width of the snapshot is scaled proportionally with the longest side and input video pixel.</p> <p>The value ranges from 240 to 3,840.</p> <p>Unit: pixel</p> <p>NOTE This parameter is used together with width/height. If neither width nor height is 0, the image size is calculated based on width/height. Otherwise, the image size is calculated based on max_length. If this parameter and width/height are not selected, snapshots are output based on the aspect ratio of the source media file.</p>

Response Parameters

Status code: 202

Table 12-6 Response body parameters

Parameter	Type	Description
task_id	String	Task ID
status	String	<p>Task status.</p> <p>The options include:</p> <ul style="list-style-type: none"> • WAITING: pending • PROCESSING: executing • SUCCEEDED: successful • FAILED: failed • CANCELED: deleted
create_time	String	Time when a task is created
output	ObsObjInfo object	Storage location of snapshots
output_file_name	String	Snapshot file name
thumbnail_time	String	Capture time

Parameter	Type	Description
description	String	Task description

Table 12-7 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none">• If this parameter is used for an input, an object must be specified.• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none">• Correct example: demo.srt• Incorrect example: [demo.srt

Parameter	Type	Description
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> If this parameter is specified, the output object name is object/file_name. If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> This parameter is valid for container format conversion. The output file name must be specified. If the output file name needs to be specified during transcoding, use the parameter output_filenames. This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. This parameter is invalid for snapshot capturing. This parameter is invalid for conversion into animated GIFs. When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Status code: 400

Table 12-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

- Creates an asynchronous snapshot capturing task to capture snapshots from a video at every set interval.

```
POST https://{endpoint}/v1/{project_id}/thumbnails
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "tar" : 1,
  "thumbnail_para" : {
    "time" : 2,
    "format" : 1,
    "max_length" : 480
  },
  "sync" : 0
}
```

- Creates a synchronous snapshot capturing task (**sync** set to **1**) to capture snapshots from a video at every set interval.

```
POST https://{endpoint}/v1/{project_id}/thumbnails
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "tar" : 1,
  "thumbnail_para" : {
    "time" : 2,
    "format" : 1,
    "max_length" : 480
  },
  "sync" : 1
}
```

Example Responses

Status code: 202

Snapshot task created successfully.

- Asynchronous snapshot capturing task created.

```
{
  "task_id" : "100211"
}
```

- Synchronous snapshot capturing task created.

```
{
  "task_id" : "100212",
  "status" : "FINISHED",
  "create_time" : "20231201020412",
  "output" : {
    "bucket" : "bucket-demo",
    "location" : "cn-north-4",
    "object" : "output/demo_object",
    "file_name" : ""
  }
}
```

```
},  
"output_file_name" : "H_270.png",  
"thumbnail_time" : "30",  
"description" : "Task completed."  
}
```

Status code: 400

Failed to create a snapshot task.

```
{  
"error_code" : "MPC.10202",  
"error_msg" : "Invalid request parameter"  
}
```

Status Codes

Status Code	Description
202	Snapshot task created successfully.
400	Failed to create a snapshot task.

Error Codes

See [Error Codes](#).

12.2 Querying Snapshot Tasks

Function

This API is used to query one or more snapshot tasks. The task results will be returned, including the status, input, and output.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:thumbnailsTask:view	List	-	-	-	-

URI

GET /v1/{project_id}/thumbnails

Table 12-9 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 12-10 Query Parameters

Parameter	Mandatory	Type	Description
task_id	No	Array of strings	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values: <ul style="list-style-type: none"> ● WAITING: pending ● PROCESSING: running ● SUCCEEDED: completed ● FAILED: failed ● CANCELED: deleted
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmss</code> . The value must be a UTC time irrelevant to the time zone.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 12-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
x-language	No	String	Client language.

Response Parameters

Status code: 200

Table 12-12 Response body parameters

Parameter	Type	Description
task_array	Array of ThumbTask objects	Query results
is_truncated	Integer	Whether the query results are truncated. Possible values: <ul style="list-style-type: none"> • 1: Query results are truncated. Some results are not returned. You can configure the page and size parameters to continue the query. • 0: Query results are not truncated. All results are returned.
total	Integer	Total number of queried snapshot tasks

Table 12-13 ThumbTask

Parameter	Type	Description
task_id	String	Task ID. A maximum of 10 task IDs can be queried at a time.
status	String	Task status. The options include: <ul style="list-style-type: none"> • WAITING: pending • PROCESSING: executing • SUCCEEDED: successful • FAILED: failed • CANCELED: deleted

Parameter	Type	Description
create_time	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.
end_time	String	End time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.
input	ObsObjInfo object	Storage location of an input file
output	ObsObjInfo object	Storage location of an output file
output_file_name	String	Name of the generated snapshot file.
user_data	String	User data
description	String	Snapshot task description.
thumbnail_info	Array of PicInfo objects	Snapshot file information

Table 12-14 ObsObjInfo

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.

Parameter	Type	Description
object	String	<p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"> • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory where the output is to be stored needs to be specified. <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"> • Correct example: demo.srt • Incorrect example: [demo.srt
file_name	String	<p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is specified by MPC. <p>When it is used as an output file name:</p> <ul style="list-style-type: none"> • This parameter is valid for container format conversion. The output file name must be specified. • If the output file name needs to be specified during transcoding, use the parameter output_filenames. • This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response. • This parameter is invalid for snapshot capturing. • This parameter is invalid for conversion into animated GIFs. • When the output file is in HLS format, a file name containing index, such as index.m3u8, will cause playback failure.

Table 12-15 PicInfo

Parameter	Type	Description
pic_name	String	Snapshot file name

Status code: 400

Table 12-16 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/thumbnails?task_id=7684
```

Example Responses

Status code: 200

Snapshot task queried successfully.

```
{
  "task_array": [ {
    "task_id": 7684,
    "status": "SUCCEEDED",
    "create_time": 20201118121333,
    "end_time": 20201118121336,
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-input.ts"
    },
    "output": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-output/example-path"
    },
    "thumbnail_info": [ {
      "pic_name": "9.jpg"
    }, {
      "pic_name": "5.jpg"
    } ]
  } ],
  "is_truncated": 0,
  "total": 1
}
```

Status code: 400

Failed to query the snapshot task.

```
{
  "error_code": "MPC.10212",
  "error_msg": "Operation failed."
}
```

Status Codes

Status Code	Description
200	Snapshot task queried successfully.
400	Failed to query the snapshot task.

Error Codes

See [Error Codes](#).

12.3 Canceling a Snapshot Task

Function

This API is used to cancel a snapshot task.

You can only cancel the queuing snapshot tasks. A snapshot task that has started or completed cannot be canceled.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:thumbnailsTask:delete	Write	-	-	-	-

URI

DELETE /v1/{project_id}/thumbnails

Table 12-17 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 12-18 Query Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 12-19 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 204

Snapshot task canceled successfully.

Status code: 400

Table 12-20 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/thumbnails?task_id=100211
```

Example Responses

Status code: 400

Failed to cancel the snapshot task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter"  
}
```

Status Codes

Status Code	Description
204	Snapshot task canceled successfully.
400	Failed to cancel the snapshot task.

Error Codes

See [Error Codes](#).

13 Authorization and Configuration APIs

13.1 Configuring Transcoding Server Event Notifications

Function

Configures event notifications on the transcoding server.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:notification:config	Write	-	-	-	-

URI

PUT /v1/{project_id}/notification

Table 13-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 13-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 13-3 Request body parameters

Parameter	Mandatory	Type	Description
notifications	Yes	Array of Notification objects	Event notification template information

Table 13-4 Notification

Parameter	Mandatory	Type	Description
event_name	No	String	Name of a message event
status	No	String	Indicates whether an event notification template is selected. <ul style="list-style-type: none"> on: Selected off: Not selected
topic	No	String	URN of the event notification topic
msg_type	No	Integer	Subscription message type. <ul style="list-style-type: none"> 0: Message subscription is disabled. 1: Text message subscription is enabled. 2: JSON message subscription is enabled. 3: Text and JSON message subscription is enabled.

Response Parameters

Status code: 204

The message subscription configuration has been modified.

Status code: 400

Table 13-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/notification
```

```
{
  "notifications" : [ {
    "event_name" : "TranscodeComplete",
    "topic" : "test",
    "msg_type" : 2,
    "status" : "on"
  } ]
}
```

Example Responses

Status code: 400

The message subscription configuration cannot be modified.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

Status Codes

Status Code	Description
204	The message subscription configuration has been modified.
400	The message subscription configuration cannot be modified.

Error Codes

See [Error Codes](#).

13.2 Querying Transcoding Server Event Notifications

Function

Queries the enabling statuses of subscription events of an SMN topic and subscription messages.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:notification:view	List	-	-	-	-

URI

GET /v1/{project_id}/notification

Table 13-6 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 13-7 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-8 Response body parameters

Parameter	Type	Description
notifications	Array of Notification objects	Event notification template information
total	Integer	Total number of event notification templates

Table 13-9 Notification

Parameter	Type	Description
event_name	String	Name of a message event
status	String	Indicates whether an event notification template is selected. <ul style="list-style-type: none"> on: Selected off: Not selected
topic	String	URN of the event notification topic
msg_type	Integer	Subscription message type. <ul style="list-style-type: none"> 0: Message subscription is disabled. 1: Text message subscription is enabled. 2: JSON message subscription is enabled. 3: Text and JSON message subscription is enabled.

Status code: 400

Table 13-10 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

GET https://{endpoint}/v1/{project_id}/notification

Example Responses

Status code: 200

Event notification query on the transcoding server has been configured.

```
{
  "total" : 7,
  "notifications" : [ {
    "event_name" : "RemuxComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "AnimatedGraphicsComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "TranscodeComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "ThumbnailComplete",
    "status" : "off",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "TranscodeStart",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "ParseComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "EditingComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }
  ]
}
```

Status code: 400

Event notification query on the transcoding server cannot be configured.

```
{
  "error_code" : "MPC.10208",
  "error_msg" : "Failed to verify the tenant ID."
}
```

Status Codes

Status Code	Description
200	Event notification query on the transcoding server has been configured.
400	Event notification query on the transcoding server cannot be configured.

Error Codes

See [Error Codes](#).

13.3 Querying All Events on a Transcoding Server

Function

Queries all subscription events of an SMN topic.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:notifyEvent:view	List	-	-	-	-

URI

GET /v1/{project_id}/notification/event

Table 13-11 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 13-12 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-13 Response body parameters

Parameter	Type	Description
event_name	Array of strings	Event name
total	Integer	Total number of events notified to the server

Status code: 403

Table 13-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code

Parameter	Type	Description
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/notification/event
```

Example Responses

Status code: 200

All subscription events of an SMN topic have been queried.

```
{
  "total" : 7,
  "event_name" : [ "TranscodeComplete", "TranscodeStart", "ThumbnailComplete", "RemuxComplete",
  "AnimatedGraphicsComplete", "ParseComplete", "EditingComplete" ]
}
```

Status code: 403

All subscription events of an SMN topic cannot be queried.

```
{
  "error_code" : "MPC.10208",
  "error_msg" : "Failed to verify the tenant ID."
}
```

Status Codes

Status Code	Description
200	All subscription events of an SMN topic have been queried.
403	All subscription events of an SMN topic cannot be queried.

Error Codes

See [Error Codes](#).

13.4 Querying Buckets

Function

Queries the list of buckets in a specified region.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:bucket:view	List	-	-	-	-

URI

GET /v1/{project_id}/buckets

Table 13-15 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 13-16 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-17 Response body parameters

Parameter	Type	Description
buckets	Array of ObsBucket objects	Bucket list

Table 13-18 ObsBucket

Parameter	Type	Description
bucket	String	Bucket name
creation_date	String	Time when the bucket is created
is_authorized	Integer	Authorization result The value can be 0 or 1. <ul style="list-style-type: none"> 0: MPC is not authorized. 1: MPC has been authorized.

Status code: 403

Table 13-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/buckets
```

Example Responses

Status code: 200

The bucket list has been queried.

```
{
  "buckets": [ {
    "bucket": "example-bucket",
    "creation_date": 20221026152511,
    "is_authorized": 1
  }, {
    "bucket": "example-bucket",
    "creation_date": 20221026104736,
    "is_authorized": 0
  } ]
}
```

Status code: 403

The bucket list cannot be queried.

```
{
  "error_code": "MPC.10208",
  "error_msg": "Failed to verify the tenant ID."
}
```

Status Codes

Status Code	Description
200	The bucket list has been queried.
403	The bucket list cannot be queried.

Error Codes

See [Error Codes](#).

13.5 Authorizing or Canceling Authorization of Access to OBS Buckets

Function

Authorizes MPC to access OBS buckets or cancels the authorization. MPC only has the read and write permissions on authorized buckets. (MPC cannot be authorized to access buckets encrypted using KMS.)

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:bucket:updateAuthorized	Write	-	-	-	-

URI

PUT /v1/{project_id}/authority

Table 13-20 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 13-21 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.

Parameter	Mandatory	Type	Description
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 13-22 Request body parameters

Parameter	Mandatory	Type	Description
bucket	Yes	String	Specifies the bucket name.
operation	Yes	String	Specifies the operation tag. The value can be 0 or 1. <ul style="list-style-type: none"> 0: Cancels the authorization. 1: Grants the authorization.

Response Parameters

Status code: 204

The information is returned when the request succeeds.

Status code: 403

Table 13-23 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Authorizes MPC to access OBS buckets or cancels the authorization. MPC only has the read and write permissions on authorized buckets.

```
PUT https://{endpoint}/v1/{project_id}/authority
```

```
{
  "bucket" : "example-bucket",
```

```
"operation" : 1  
}
```

Example Responses

Status code: 403

The bucket authorization status cannot be changed.

```
{  
  "error_code" : "MPC.10209",  
  "error_msg" : "Invalid input or output OBS path."  
}
```

Status Codes

Status Code	Description
204	The information is returned when the request succeeds.
403	The bucket authorization status cannot be changed.

Error Codes

See [Error Codes](#).

13.6 Querying Objects in a Bucket

Function

Queries objects in a bucket.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:bucket Object:view	List	-	-	-	-

URI

GET /v1.0-ext/{project_id}/objects

Table 13-24 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Table 13-25 Query Parameters

Parameter	Mandatory	Type	Description
bucket	Yes	String	Specifies the bucket name.
prefix	No	String	Queries the prefix of an object.
type	No	String	Queries the file type of an object.

Request Parameters

Table 13-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Parameter	Mandatory	Type	Description
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-27 Response body parameters

Parameter	Type	Description
objects	Array of ObsObject objects	Returned OBS object details.

Table 13-28 ObsObject

Parameter	Type	Description
file_name	String	Object key
size	Long	File size
last_modified	String	Time when the file is last modified

Status code: 400

Table 13-29 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/objects
```

Example Responses

Status code: 400

Objects in the bucket cannot be queried.

```
{  
  "error_code" : "MPC.10209",  
  "error_msg" : "Invalid input or output OBS path."  
}
```

Status Codes

Status Code	Description
200	Objects in the bucket have been queried.
400	Objects in the bucket cannot be queried.

Error Codes

See [Error Codes](#).

13.7 Requesting OBS Authorization

Function

Enables or disables **OBS Authorization**. After this function is enabled, MPC has the read and write permissions for all your buckets. **OBS Authorization** is not available for IAM users.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:agenciesTask:create	Write	-	-	-	-

URI

POST /v1/{project_id}/agencies

Table 13-30 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 13-31 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Table 13-32 Request body parameters

Parameter	Mandatory	Type	Description
project_id	No	String	ID of the tenant who has an OBS authorization task
operate_type	Yes	String	Specifies the operation tag. Value range: [CREATED, CANCELED] <ul style="list-style-type: none">• CREATED: authorized• CANCELED: authorization canceled

Response Parameters

Status code: 204

The information is returned when the request succeeds.

Status code: 403

Table 13-33 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Enables or disables **OBS Authorization**. After this function is enabled, MPC has the read and write permissions for all your buckets. **OBS Authorization** is not available for IAM users.

```
POST https://{endpoint}/v1/{project_id}/agencies
{
  "operate_type": "CREATED"
}
```

Example Responses

Status code: 403

The OBS authorization status cannot be changed.

```
{
  "error_code": "MPC.10223",
```

```
"error_msg" : "An agency has been created."
}
```

Status Codes

Status Code	Description
204	The information is returned when the request succeeds.
403	The OBS authorization status cannot be changed.

Error Codes

See [Error Codes](#).

13.8 Querying the Status of OBS Authorization Task Creation

Function

Queries the status of creating an OBS authorization task.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
mpc:agenie sTask:view	Read	-	-	-	-

URI

GET /v1/{project_id}/agencies

Table 13-34 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 13-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Project_Id	No	String	Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-36 Response body parameters

Parameter	Type	Description
operate_type	String	Specifies the operation tag. Value range: [CREATED, CANCELED] <ul style="list-style-type: none"> CREATED: authorized CANCELED: authorization canceled

Status code: 400

Table 13-37 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/agencies
```

Example Responses

Status code: 200

The status of creating an OBS authorization task has been queried.

```
{
  "operate_type": "CREATED"
}
```

Status Codes

Status Code	Description
200	The status of creating an OBS authorization task has been queried.
400	The status of creating an OBS authorization task cannot be queried.

Error Codes

See [Error Codes](#).

14 Tenant Subscription

14.1 Subscribing to the Media Transcoding Service as a Tenant

Function

A tenant subscribes to the media transcoding service.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, no identity policy-based permission required for calling this API.

URI

PUT /v1/{project_id}/tenant/access

Table 14-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 14-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 14-3 Request body parameters

Parameter	Mandatory	Type	Description
is_open	No	Boolean	Whether the service has been subscribed to <ul style="list-style-type: none"> • false: no • true: yes
agreement_version	No	Integer	Service agreement version.

Response Parameters

Status code: 200

If the request is successful, **200 OK No Content** is returned.

Status code: 400

Table 14-4 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
{
  "is_open" : false,
  "agreement_version" : 1
}
```

Example Responses

None

Status Codes

Status Code	Description
200	If the request is successful, 200 OK No Content is returned.
400	The information is returned when the request failed.

Error Codes

See [Error Codes](#).

14.2 Querying Service Subscription Status as a Tenant

Function

This API is used by a tenant to query the subscription status of the media transcoding service.

Calling Method

For details, see [Calling APIs](#).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, no identity policy-based permission required for calling this API.

URI

GET /v1/{project_id}/tenant/access

Table 14-5 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see Obtaining a Project ID .

Request Parameters

Table 14-6 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 14-7 Response body parameters

Parameter	Type	Description
is_open	Boolean	Whether the service has been subscribed to <ul style="list-style-type: none"> false: no true: yes
agreement_version	Integer	Service agreement version.

Status code: 400

Table 14-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

None

Example Responses

Status code: 200

The information is returned when the request succeeded.

```
{  
  "is_open" : false,  
  "agreement_version" : 1  
}
```

Status Codes

Status Code	Description
200	The information is returned when the request succeeded.
400	The information is returned when the request failed.

Error Codes

See [Error Codes](#).

15 Permissions and Supported Actions

15.1 Introduction

You can use Identity and Access Management (IAM) for fine-grained permissions management of your MPC resources. If your HUAWEI ID does not need individual IAM users, you can skip this section.

With IAM, you can control access to specific Huawei Cloud resources. IAM supports role/policy-based authorization and identity policy-based authorization.

The following table describes the differences between these two authorization models.

Table 15-1 Differences between role/policy-based and identity policy-based authorization

Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Role/Policy	User-permission-authorization scope	<ul style="list-style-type: none"> System-defined roles System-defined policies Custom policies 	Assigning roles or policies to principals	To authorize a user, you need to add it to a user group first and then specify the scope of authorization. It is hard to provide fine-grained permissions control using authorization by user groups and a limited number of condition keys. This method is suitable for small- and medium-sized enterprises.

Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Identity policy	User-policy	<ul style="list-style-type: none"> System-defined identity policies Custom identity policies 	<ul style="list-style-type: none"> Assigning identity policies to principals Attaching identity policies to principals 	You can authorize a user by attaching an identity policy to it. User-specific authorization and a variety of key conditions allow for more fine-grained permissions control. However, this model can be hard to set up. It requires a certain amount of expertise and is suitable for medium- and large-sized enterprises.

Assume that you want to grant IAM users the permissions needed to create ECSs in CN North-Beijing4 and OBS buckets in CN South-Guangzhou. With role/policy-based authorization, the administrator needs to create two custom policies and assign both to the IAM users. With identity policy-based authorization, the administrator only needs to create one custom identity policy and configure the condition key **g:RequestedRegion** for the policy, and then attach the policy to the users or grant the users the access permissions to the specified regions. Identity policy-based authorization is more flexible than role/policy-based authorization.

Policies/identity policies and actions in the two authorization models are not interoperable. You are advised to use the identity policy-based authorization model.

If you use IAM users in your account to call an API, the IAM users must be granted the required permissions. The required permissions are determined by the actions supported by the API. Only users with the policies allowing for those actions can call the API successfully.

For example, if an IAM user wants to call the API for creating a transcoding task, the IAM user must have the permissions of the MPC Administrator role. With identity policy-based authorization, the IAM user must be granted the permission for the action **mpc:transcodeTask:create**.

15.2 Actions Supported by Identity Policy-based Authorization

IAM provides system-defined identity policies to define typical cloud service permissions. You can also create custom identity policies using the actions supported by cloud services for more refined access control.

In addition to IAM, the **Organizations** service also provides **Service Control Policies (SCPs)** to set access control policies.

SCPs do not actually grant any permissions to an entity. They only set the permissions boundary for the entity. When SCPs are attached to an organizational unit (OU) or a member account, the SCPs do not directly grant permissions to that OU or member account. Instead, the SCPs only determine what permissions are available for that member account or those member accounts under that OU. The granted permissions can be applied only if they are allowed by the SCPs.

To learn more about how IAM is different from Organizations for access control, see **How IAM Is Different from Organizations for Access Control?**

This section describes the elements used by IAM custom identity policies and Organizations SCPs. The elements include actions, resources, and conditions.

- For details about how to use these elements to edit an IAM custom identity policy, see **Creating a Custom Identity Policy**.
- For details about how to use these elements to edit a custom SCP, see **Creating an SCP**.

Actions

Actions are specific operations that are allowed or denied in an identity policy.

- The Access Level column describes how the action is classified (List, Read, or Write). This classification helps you understand the level of access that an action grants when you use it in an identity policy.
- The Resource Type column indicates whether the action supports resource-level permissions.
 - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your identity policy statements.
 - If this column includes a resource type, you must specify the URN in the Resource element of your identity policy statements.
 - Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

For details about the resource types defined by MPC, see **Resources**.

- The Condition Key column contains keys that you can specify in the Condition element of an identity policy statement.
 - If the Resource Type column has values for an action, the condition key takes effect only for the listed resource types.
 - If the Resource Type column is empty (-) for an action, the condition key takes effect for all resources that action supports.
 - If the Condition Key column is empty (-) for an action, the action does not support any condition keys.

For details about the condition keys defined by MPC, see **Conditions**.

- The Alias column lists the policy actions that are configured in identity policies. With these actions, you can use APIs for policy-based authorization. For details, see **Policies and Identity Policies**.

The following table lists the actions that you can define in identity policy statements for MPC.

Table 15-2 Actions supported by MPC

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:transcodeTemplate:create	Grants permission to create a transcoding template.	Write	-	-	-
mpc:transcodeTemplate:update	Grants permission to modify a custom transcoding template.	Write	-	-	-
mpc:transcodeTemplate:delete	Grants permission to delete a custom transcoding template.	Write	-	-	-
mpc:transcodeTemplate:view	Grants permission to queries one or more custom transcoding templates.	List	-	-	-
mpc:templateGroup:create	Grants permission to create a transcoding template group.	Write	-	-	-
mpc:templateGroup:view	Grants permission to query one or more custom transcoding template groups.	Write	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:templateGroup:update	Grants permission to modify a custom transcoding template group.	Write	-	-	-
mpc:templateGroup:delete	Grants permission to delete a custom transcoding template group.	Write	-	-	-
mpc:watermarkTemplate:create	Grants permission to Creates a custom watermark template.	Write	-	-	-
mpc:watermarkTemplate:update	Grants permission to modify a watermark template.	Write	-	-	-
mpc:watermarkTemplate:delete	Grants permission to delete a watermark template.	Write	-	-	-
mpc:watermarkTemplate:view	Grants permission to query one or more custom watermark templates.	List	-	-	-
mpc:transcodeTask:create	Grants permission to create a transcoding task.	Write	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:transcodeTask:delete	Grants permission to cancel a transcoding task.	Write	-	-	-
mpc:transcodeTask:view	Grants permission to query one or more transcoding tasks.	Read	-	-	-
mpc:transcodeTask:deleteRecord	Grants permission to delete transcoding task records.	Write	-	-	-
mpc:transcodeTask:viewSummaryStatistics	Grants permission to query the task duration statistics.	List	-	-	-
mpc:remuxTask:create	Grants permission to create a packaging task.	Write	-	-	-
mpc:remuxTask:retry	Grants permission to retry a failed packaging task.	Write	-	-	-
mpc:remuxTask:view	Grants permission to query one or more packaging tasks.	List	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:remuxTask:delete	Grants permission to cancel a packaging task.	Write	-	-	-
mpc:remuxTask:deleteRecord	Grants permission to delete packaging task records.	Write	-	-	-
mpc:animatedGraphicsTask:create	Grants permission to create an animated GIF task.	Write	-	-	-
mpc:animatedGraphicsTask:view	Grants permission to query one or more animated GIF tasks.	List	-	-	-
mpc:animatedGraphicsTask:delete	Grants permission to cancel an animated GIF task.	Write	-	-	-
mpc:extractTask:create	Grants permission to create a task to parse the metadata of a video file.	Write	-	-	-
mpc:extractTask:view	Grants permission to query the status and results of one or more video parsing tasks.	List	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:extractTask:delete	Grants permission to cancel a video parsing task.	Write	-	-	-
mpc:thumbnailsTask:create	Grants permission to create a task for capturing snapshots.	Write	-	-	-
mpc:thumbnailsTask:view	Grants permission to query one or more snapshot tasks.	List	-	-	-
mpc:thumbnailsTask:delete	Grants permission to cancel a snapshot task.	Write	-	-	-
mpc:notification:config	Grants permission to configures event notifications on the transcoding server.	Write	-	-	-
mpc:notification:view	Grants permission to queries the enabling statuses of subscription events.	List	-	-	-
mpc:notification:view	Grants permission to queries all subscription events of an SMN topic.	List	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
mpc:bucket:view	Grants permission to queries the list of buckets in a specified region.	List	-	-	-
mpc:bucket:updateAuthorized	Grants permission to authorizes MPC to access OBS buckets or cancels the authorization.	Write	-	-	-
mpc:bucketObject:view	Grants permission to queries objects in a bucket.	List	-	-	-
mpc:agencyTask:create	Grants permission to enables or disables OBS Authorization.	Write	-	-	-
mpc:agencyTask:view	Grants permission to queries the status of creating an OBS authorization task.	Read	-	-	-

Each API of MPC usually supports one or more actions. [Table 15-3](#) lists the supported actions and dependencies.

Table 15-3 Actions and dependencies supported by MPC APIs

API	Action	Dependencies
POST /v1/{project_id}/template/transcodings	mpc:transcodeTemplate:create	-
PUT /v1/{project_id}/template/transcodings	mpc:transcodeTemplate:update	-
DELETE /v1/{project_id}/template/transcodings	mpc:transcodeTemplate:delete	-
GET /v1/{project_id}/template/transcodings	mpc:transcodeTemplate:view	-
POST /v1/{project_id}/template_group/transcodings	mpc:templateGroup:create	-
GET /v1/{project_id}/template_group/transcodings	mpc:templateGroup:view	-
PUT /v1/{project_id}/template_group/transcodings	mpc:templateGroup:update	-
DELETE /v1/{project_id}/template_group/transcodings	mpc:templateGroup:delete	-
POST /v1/{project_id}/template/watermark	mpc:watermarkTemplate:create	-
PUT /v1/{project_id}/template/watermark	mpc:watermarkTemplate:update	-

API	Action	Dependencies
DELETE /v1/{project_id}/template/watermark	mpc:watermarkTempate:delete	-
GET /v1/{project_id}/template/watermark	mpc:watermarkTempate:view	-
POST /v1/{project_id}/transcodings	mpc:transcodeTask:create	-
DELETE /v1/{project_id}/transcodings	mpc:transcodeTask:delete	-
GET /v1/{project_id}/transcodings	mpc:transcodeTask:view	-
DELETE /v1/{project_id}/transcodings/task	mpc:transcodeTask:deleteRecord	-
GET /v1/{project_id}/transcodings/summaries	mpc:transcodeTask:viewSummaryStatistics	-
POST /v1/{project_id}/remux	mpc:remuxTsk:create	-
PUT /v1/{project_id}/remux	mpc:remuxTsk:retry	-
GET /v1/{project_id}/remux	mpc:remuxTsk:view	-
DELETE /v1/{project_id}/remux	mpc:remuxTsk:delete	-
DELETE /v1/{project_id}/remux/task	mpc:remuxTsk:deleteRecord	-
POST /v1/{project_id}/animated-graphics	mpc:animatedGraphicsTask:create	-
GET /v1/{project_id}/animated-graphics	mpc:animatedGraphicsTask:view	-

API	Action	Dependencies
DELETE /v1/{project_id}/animated-graphics	mpc:animatedGraphic-sTask:delete	-
POST /v1/{project_id}/extract-metadata	mpc:extractTask:create	-
GET /v1/{project_id}/extract-metadata	mpc:extractTask:view	-
DELETE /v1/{project_id}/extract-metadata	mpc:extractTask:delete	-
POST /v1/{project_id}/thumbnails	mpc:thumbnailsTask:create	-
GET /v1/{project_id}/thumbnails	mpc:thumbnailsTask:view	-
DELETE /v1/{project_id}/thumbnails	mpc:thumbnailsTask:delete	-
PUT /v1/{project_id}/notification	mpc:notification:config	-
GET /v1/{project_id}/notification	mpc:notification:view	-
GET /v1/{project_id}/notification/event	mpc:notifyEvent:view	-
GET /v1/{project_id}/buckets	mpc:bucket:view	-
PUT /v1/{project_id}/authority	mpc:bucket:updateAuthorized	-
GET /v1.0-ext/{project_id}/objects	mpc:bucketObject:view	-

API	Action	Dependencies
POST /v1/{project_id}/agencies	mpc:ageniesTask:create	-
GET /v1/{project_id}/agencies	mpc:ageniesTask:view	-

Resources

MPC does not support resource-level authorization. To allow access to MPC, use a wildcard (*) in the Resource element of the identity policy, indicating that the identity policy will be applied to all resources.

Conditions

MPC does not support service-specific condition keys in identity policies. It can only use global condition keys applicable to all services. For details, see [Global Condition Keys](#).

16 Appendix

16.1 Status Codes

Table 16-1 lists the status codes that may be returned when you call MPC APIs.

Table 16-1 Status codes

Status Code	Description
200 OK	The request has succeeded.
201 Created	The request for creating a resource has been fulfilled.
202 Accepted	The request has been accepted for handling, but the handling has not been completed.
204 No Content	The request has been fulfilled, but the HTTP response does not contain a response body.
400 Bad Request	The request is invalid. Do not retry the request before modifying it.
401 Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.
403 Forbidden	The request has been rejected. The server has received and understood the request but it refused to respond, because the request is set to deny access. Do not retry the request before modifying it.
404 Not Found	The requested resource cannot be found. Do not retry the request before modifying it.
405 Method Not Allowed	The request contains one or more methods not allowed for the resource. Do not retry the request before modifying it.

Status Code	Description
406 Not Acceptable	The server cannot fulfill the request sent by the client according to its content characteristics.
407 Proxy Authentication Required	This status code is similar to 401, but the client must first authenticate itself with the proxy.
408 Request Timeout	The client failed to send a request to the server within the time limit. The client may repeat the request without modifying it at any time later.
409 Conflict	The request cannot be handled due to a conflict with the status of the resource. This status code indicates that the resource that the client is attempting to create already exists, or that the requested update cannot be fulfilled due to the conflict.
500 Internal Server Error	The server is able to receive but unable to understand the request.
501 Not Implemented	The server does not support the requested function.
502 Bad Gateway	The server that acts as a gateway or proxy received an invalid request from a remote server.
503 Service Unavailable	The requested service is invalid. Do not retry the request before modifying it.
504 Gateway Timeout	A gateway timeout error occurred.

16.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in [API Gateway Error Codes](#).

Status Code	Error Codes	Error Message	Description	Solution
400	MPC.10089	The template file does not exist.	The template file does not exist.	The template file does not exist. Please check.
400	MPC.10090	The template file does not exist.	The template file does not exist.	The template file does not exist. Please check.

Status Code	Error Codes	Error Message	Description	Solution
400	MPC.10091	The template name already exists.	The template name already exists.	Enter another template name.
400	MPC.10155	The subtitle file list and M3U8 file do not contain the specified default language.	The subtitle file list and M3U8 file do not contain the specified default language.	The subtitle file list and M3U8 file do not contain the specified default language.
400	MPC.10156	File deletion failed.	File deletion failed.	File deletion failed.
400	MPC.10202	Invalid request parameter.	Invalid request parameter.	Check whether the request parameter is correct.
400	MPC.10204	Incorrect request method.	Incorrect request method.	Check the request method.
400	MPC.10205	Incorrect request content type.	Incorrect request content type.	Check the request content type.
400	MPC.10223	An agency has been created.	An agency has been created.	An agency has been created. Please check.
400	MPC.10224	The agency has been deleted.	The agency has been deleted.	The agency has been deleted. Please check.
400	MPC.10230	The template group already exists.	The template group already exists.	The template group already exists. Please check.
400	MPC.10231	The template group does not exist.	The template group does not exist.	The template group does not exist. Please check.
401	MPC.10203	Identity authentication failed.	Identity authentication failed.	Check whether authentication parameters such as Token are correct.

Status Code	Error Codes	Error Message	Description	Solution
401	MPC.10206	You have not completed real-name authentication.	You have not completed real-name authentication.	Check whether you have completed real-name authentication.
401	MPC.10207	Your account is in an abnormal state.	Your account is in an abnormal state.	Check your account state.
401	MPC.10208	Tenant ID verification failed, please check.	Tenant ID verification failed, please check.	Check whether the tenant ID is correct.
403	MPC.10010	Invalid input parameters.	Invalid input parameters.	The input parameter is incorrect. Please check.
403	MPC.10211	The task does not exist.	The task does not exist.	The task does not exist. Please check.
403	MPC.10212	Operation failed. The task is in progress or has been completed.	Operation failed. The task is in progress or has been completed.	The task is in progress or has been completed. Please check.
403	MPC.10214	The topic does not exist.	The topic does not exist.	The topic does not exist. Please check.
403	MPC.10215	The topic already exists.	The topic already exists.	The topic already exists. Please check.
403	MPC.10226	The resource does not exist.	The resource does not exist.	The resource does not exist.

Status Code	Error Codes	Error Message	Description	Solution
403	MPC.10240	Failed to obtain the basic information about the media file.	Failed to obtain the basic information about the media file.	Check whether the OBS bucket has been authorized and whether KMS encryption has been configured for the OBS bucket.
403	MPC.10243	Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service.	Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service.	Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service.
403	MPC.10244	Insufficient account balance. Top up your account.	Insufficient account balance. Top up your account.	Insufficient account balance. Top up your account.
406	MPC.10051	The selected template is a super-resolution template and is not supported.	The selected template is a super-resolution template and is not supported.	Select a valid template.
406	MPC.10052	Failed to obtain the input file.	Failed to obtain the input file.	Check the file path.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10053	The input file does not exist.	The input file does not exist.	The input file does not exist. Please check.
406	MPC.10054	Failed to obtain the subtitle file.	Failed to obtain the subtitle file.	Check the file path.
406	MPC.10055	The audio sampling rate 7,350 is not supported.	The audio sampling rate 7,350 is not supported.	Set a valid audio sampling rate.
406	MPC.10056	This type of output frame rate is not supported.	This type of output frame rate is not supported.	Set a valid frame rate.
406	MPC.10057	This type of output bitrate is not supported.	This type of output bitrate is not supported.	Set a valid bitrate.
406	MPC.10058	This type of output video width is not supported.	This type of output video width is not supported.	Set a valid width.
406	MPC.10059	This type of output video height is not supported.	This type of output video height is not supported.	Set a valid height.
406	MPC.10060	This type of I-frame interval is not supported.	This type of I-frame interval is not supported.	Set a valid I-frame interval.
406	MPC.10061	Capturing snapshots at non-fixed intervals is not supported.	Capturing snapshots at non-fixed intervals is not supported.	Change the interval to a fixed interval.
406	MPC.10062	Invalid video codec.	Invalid video codec.	Set a valid video codec.
406	MPC.10063	Invalid video format.	Invalid video format.	Set a valid video format.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10064	Multiple watermarks are not supported.	Multiple watermarks are not supported.	Only two watermarks are supported.
406	MPC.10065	Invalid output file format.	Invalid output file format.	Set a valid output format.
406	MPC.10066	The input file format does not match the actual format.	The input file format does not match the actual format.	The input file format does not match the actual format. Please check.
406	MPC.10067	Failed to obtain the ID of the video codec.	Failed to obtain the ID of the video codec.	Failed to obtain the ID of the video codec. Please check.
406	MPC.10068	Failed to obtain the ID of the audio codec.	Failed to obtain the ID of the audio codec.	Failed to obtain the ID of the audio codec. Please check.
406	MPC.10069	Failed to obtain the ID of the subtitle codec.	Failed to obtain the ID of the subtitle codec.	Failed to obtain the ID of the subtitle codec. Please check.
406	MPC.10070	Failed to obtain the encoding/decoding format.	Failed to obtain the encoding/decoding format.	Failed to obtain the encoding/decoding format. Please check.
406	MPC.10071	Failed to obtain the parameters of the input video stream.	Failed to obtain the parameters of the input video stream.	Failed to obtain the parameters of the input video stream. Please check.
406	MPC.10072	Invalid frame rate of the video stream.	Invalid frame rate of the video stream.	Invalid frame rate of the video stream. Please check.
406	MPC.10080	Invalid frame rate of the input file.	Invalid frame rate of the input file.	Invalid frame rate of the input file. Please check.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10081	The file does not contain audio streams.	The file does not contain audio streams.	Check the input file.
406	MPC.10082	Failed to obtain the input audio or video stream.	Failed to obtain the input audio or video stream.	Failed to obtain the input audio or video stream. Please check.
406	MPC.10083	This type of codec is not supported.	This type of codec is not supported.	This type of codec is not supported. Please check.
406	MPC.10084	This chroma subsampling format is not supported.	This chroma subsampling format is not supported.	This chroma subsampling format is not supported. Please check.
406	MPC.10085	The file format is not supported.	The file format is not supported.	The file format is not supported. Please check.
406	MPC.10086	Failed to obtain the input file.	Failed to obtain the input file.	Check the file path.
406	MPC.10087	Invalid task parameters.	Invalid task parameters.	Invalid task parameters. Please check.
406	MPC.10088	The image file does not exist.	The image file does not exist.	The image file does not exist. Please check.
406	MPC.10092	The image file does not exist.	The image file does not exist.	The image file does not exist. Please check.
406	MPC.10093	The file name exceeds the maximum length.	The file name exceeds the maximum length.	The file name exceeds the maximum length. Please check.
406	MPC.10094	Invalid file format.	Invalid file format.	Invalid file format. Please check.
406	MPC.10095	The watermark is placed in a wrong position.	The watermark is placed in a wrong position.	The watermark is placed in a wrong position. Please check.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10096	Invalid watermark size.	Invalid watermark size.	Invalid watermark size. Please check.
406	MPC.10097	Invalid watermark scaling ratio.	Invalid watermark scaling ratio.	Invalid watermark scaling ratio. Please check.
406	MPC.10098	Invalid watermark duration.	Invalid watermark duration.	Invalid watermark duration. Please check.
406	MPC.10099	The media stream type is not supported.	The media stream type is not supported.	The media stream type is not supported. Please check.
406	MPC.10100	An error occurred when parsing the video frame rate information.	An error occurred when parsing the video frame rate information.	An error occurred when parsing the video frame rate information. Please check.
406	MPC.10101	Invalid input parameters.	Invalid input parameters.	Invalid input parameters. Please check.
406	MPC.10102	Failed to open the input file.	Failed to open the input file.	Failed to open the input file. Please check.
406	MPC.10103	Open GOP is not supported.	Open GOP is not supported.	Open GOP is not supported. Please check.
406	MPC.10104	Internal error.	Internal error.	Try again or contact technical support.
406	MPC.10105	An error occurred during transcoding.	An error occurred during transcoding.	Try again or contact technical support.
406	MPC.10106	The audio sampling rate is lower than 12,000. The audio will be discarded.	The audio sampling rate is lower than 12,000. The audio will be discarded.	The audio sampling rate is lower than 12,000. The audio will be discarded.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10107	Invalid input video resolution.	Invalid input video resolution.	Invalid input video resolution. Please check.
406	MPC.10108	The audio sampling rate of the input video is incorrect.	The audio sampling rate of the input video is incorrect.	The audio sampling rate of the input video is incorrect. Please check.
406	MPC.10109	Invalid resolution in the template.	Invalid resolution in the template.	Invalid resolution in the template. Please check.
406	MPC.10110	The video encoding format of the input file is not supported.	The video encoding format of the input file is not supported.	The video encoding format of the input file is not supported.
406	MPC.10111	Failed to obtain the file from OBS.	Failed to obtain the file from OBS.	Failed to obtain the file from OBS.
406	MPC.10112	The video or audio format of the input file is not supported.	The video or audio format of the input file is not supported.	The video or audio format of the input file is not supported.
406	MPC.10113	The DTS of the input file is not supported.	The DTS of the input file is not supported.	The DTS of the input file is not supported.
406	MPC.10114	The header information of the input file is incorrect.	The header information of the input file is incorrect.	The header information of the input file is incorrect. Please check.
406	MPC.10115	The watermark cannot be scaled down by more than 256 times.	The watermark cannot be scaled down by more than 256 times.	The watermark cannot be scaled down by more than 256 times.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10116	The audio encoding format of the input file is not supported.	The audio encoding format of the input file is not supported.	The audio encoding format of the input file is not supported.
406	MPC.10117	The audio and video in the input file are not synchronized.	The audio and video in the input file are not synchronized.	The audio and video in the input file are not synchronized.
406	MPC.10118	Failed to upload files to the OBS path.	Failed to upload files to the OBS path.	Try again or contact technical support.
406	MPC.10119	Invalid input data.	Invalid input data.	Invalid input data. Please check.
406	MPC.10120	The task does not exist.	The task does not exist.	The task does not exist. Please check.
406	MPC.10121	The subtitle file does not exist.	The subtitle file does not exist.	The subtitle file does not exist. Please check.
406	MPC.10122	The resolution in the template is greater than the input video resolution.	The resolution in the template is greater than the input video resolution.	The resolution in the template is greater than the input video resolution. Please check.
406	MPC.10123	The header information of the input file is incorrect.	The header information of the input file is incorrect.	The header information of the input file is incorrect. Please check.
406	MPC.10124	Some data in the input file are missing.	Some data in the input file are missing.	Check the input file for its completeness.
406	MPC.10125	Input data error.	Input data error.	Check whether the input file can be played.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10126	Input data error.	Input data error.	Check whether the input file can be played.
406	MPC.10127	Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM.	Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM.	Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM. Please check.
406	MPC.10128	Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM.	Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM.	Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM. Please check.
406	MPC.10129	Failed to obtain the index file when a DASH media file is encrypted with DRM.	Failed to obtain the index file when a DASH media file is encrypted with DRM.	Failed to obtain the index file when a DASH media file is encrypted with DRM. Please check.
406	MPC.10130	The HLS content fails to be encrypted using DRM.	The HLS content fails to be encrypted using DRM.	The HLS content fails to be encrypted using DRM. Please check.
406	MPC.10131	Failed to modify the index file when an HLS media file is encrypted with DRM.	Failed to modify the index file when an HLS media file is encrypted with DRM.	Failed to modify the index file when an HLS media file is encrypted with DRM. Please check.
406	MPC.10132	Failed to obtain the IV during DRM encryption.	Failed to obtain the IV during DRM encryption.	Failed to obtain the IV during DRM encryption. Please check.
406	MPC.10133	The DASH content fails to be encrypted using DRM.	The DASH content fails to be encrypted using DRM.	The DASH content fails to be encrypted using DRM. Please check.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10134	Failed to modify the index file when a DASH media file is encrypted with DRM.	Failed to modify the index file when a DASH media file is encrypted with DRM.	Failed to modify the index file when a DASH media file is encrypted with DRM. Please check.
406	MPC.10135	Failed to package the digital watermark due to the incorrect xformat configuration.	Failed to package the digital watermark due to the incorrect xformat configuration.	Failed to package the digital watermark due to the incorrect xformat configuration. Please check.
406	MPC.10136	Failed to package the digital watermark because xformat fails to be started.	Failed to package the digital watermark because xformat fails to be started.	Failed to package the digital watermark because xformat fails to be started. Please check.
406	MPC.10137	Failed to package the digital watermark because xformat fails to create a task.	Failed to package the digital watermark because xformat fails to create a task.	Failed to package the digital watermark because xformat fails to create a task. Please check.
406	MPC.10138	Failed to package the digital watermark because xformat fails to query the task.	Failed to package the digital watermark because xformat fails to query the task.	Failed to package the digital watermark because xformat fails to query the task. Please check.
406	MPC.10139	Failed to package the digital watermark because the xformat task timed out.	Failed to package the digital watermark because the xformat task timed out.	Try again or contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10140	The I-frame interval exceeds 500.	The I-frame interval exceeds 500.	Set the I-frame interval to 500 or less.
406	MPC.10141	The input file is an audio file. The selected template contains video parameters.	The input file is an audio file. The selected template contains video parameters.	Select a valid template.
406	MPC.10143	Invalid index file content.	Invalid index file content.	Invalid index file content.
406	MPC.10144	Black bars seem to be on the input video.	Black bars seem to be on the input video.	Review the input video.
406	MPC.10145	Data frames imported to the detection module seem to be not enough for identifying the specific position of the black bar.	Data frames imported to the detection module seem to be not enough for identifying the specific position of the black bar.	Review the input video.
406	MPC.10146	The black bar seems to overlap with subtitles.	The black bar seems to overlap with subtitles.	Review the input video.
406	MPC.10147	The black bar seems to overlap with the watermark.	The black bar seems to overlap with the watermark.	Review the input video.
406	MPC.10148	The black bars seem to be asymmetric.	The black bars seem to be asymmetric.	Review the input video.
406	MPC.10149	The specific position of the black bar cannot be identified.	The specific position of the black bar cannot be identified.	Review the input video.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10150	The cropped black bar size exceeds the input video size.	The cropped black bar size exceeds the input video size.	Review the input video.
406	MPC.10151	Failed to download the subtitle file in the slicing phase.	Failed to download the subtitle file in the slicing phase.	Failed to download the subtitle file in the slicing phase. Please check.
406	MPC.10152	The video encoding format of the input file is not supported.	The video encoding format of the input file is not supported.	The video encoding format of the input file is not supported. Please check.
406	MPC.10153	Input file error.	Input file error.	Check whether the input file can be played.
406	MPC.10154	Failed to open the input file.	Failed to open the input file.	Check whether the input file can be played.
406	MPC.10200	System error.	System error.	Contact technical support.
406	MPC.10201	Internal communication error.	Internal communication error.	Contact technical support.
406	MPC.10209	Invalid input or output OBS path.	Invalid input or output OBS path.	Check whether the input or output OBS path is correct.
406	MPC.10210	Failed to obtain the input file from OBS.	Failed to obtain the input file from OBS.	Failed to obtain the input file from OBS. Please check.
406	MPC.10213	Operation failed. The task is not in the final state.	Operation failed. The task is not in the final state.	The task is not in the final state. Please check.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10216	Failed to set event notifications. You do not have the permission to publish messages to the topic.	Failed to set event notifications. You do not have the permission to publish messages to the topic.	You do not have the permission to publish messages to the topic. Please check.
406	MPC.10217	The usage exceeds the OBT quota.	The usage exceeds the OBT quota.	The usage exceeds the threshold. Please check.
406	MPC.10218	The task has completed.	The task has completed.	The task has completed. Please check.
406	MPC.10219	Invalid request parameter.	Invalid request parameter.	Invalid request parameter. Please check.
406	MPC.10220	The task has expired.	The task has expired.	The task has expired. Please check.
406	MPC.10221	Internal service error.	Internal service error.	Check the template and try again.
406	MPC.10222	Key parameters in the template are inconsistent.	Key parameters in the template are inconsistent.	The obtained input file is not correct. Please check.
406	MPC.10225	KMS service error.	KMS service error.	Contact technical support.
406	MPC.10227	You do not have the permission to access the requested resource.	You do not have the permission to access the requested resource.	You do not have the access permission. Please check.
406	MPC.10228	Your account is in arrears. Top up your account.	Your account is in arrears. Top up your account.	Top up your account as soon as possible.

Status Code	Error Codes	Error Message	Description	Solution
406	MPC.10229	You do not have the permission to perform this operation.	You do not have the permission to perform this operation.	You do not have the permission to perform this operation. Please check.
406	MPC.10232	GIF task failed.	GIF task failed.	GIF task failed. Please check.
406	MPC.10233	Packaging task failed.	Packaging task failed.	Packaging task failed. Please check.
406	MPC.10234	The function is temporarily brought offline.	The function is temporarily brought offline.	The function is offline. Please check.
406	MPC.10235	Identity authentication failed due to an invalid token.	Identity authentication failed due to an invalid token.	Check whether the token is correct.
406	MPC.10236	You do not have permission to access the OBS bucket.	You do not have the permission to access the OBS bucket.	Contact the tenant administrator to perform bucket authorization or to grant member accounts the permission to access OBS.
406	MPC.10237	API Gateway rate limiting	API Gateway rate limiting	API Gateway is implementing rate limiting. Please check.
500	MPC.10001	IAM service exception.	IAM service exception.	Contact technical support.
500	MPC.10002	OBS service exception.	OBS service exception.	Contact technical support.
500	MPC.10003	SMN service exception.	SMN service exception.	Contact technical support.
500	MPC.10004	CBC service exception.	CBC service exception.	Contact technical support.
500	MPC.10005	SDR service exception.	SDR service exception.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	MPC.10006	ZK service exception.	ZK service exception.	Contact technical support.
500	MPC.10007	MONGO service exception.	MONGO service exception.	Contact technical support.
500	MPC.10008	MPE service exception.	MPE service exception.	Contact technical support.
500	MPC.10050	XCODE service exception.	XCODE service exception.	Contact technical support.

16.3 Obtaining a Project ID

A project ID is required for some URLs when an API is called. You can obtain a project ID using either of the following methods:

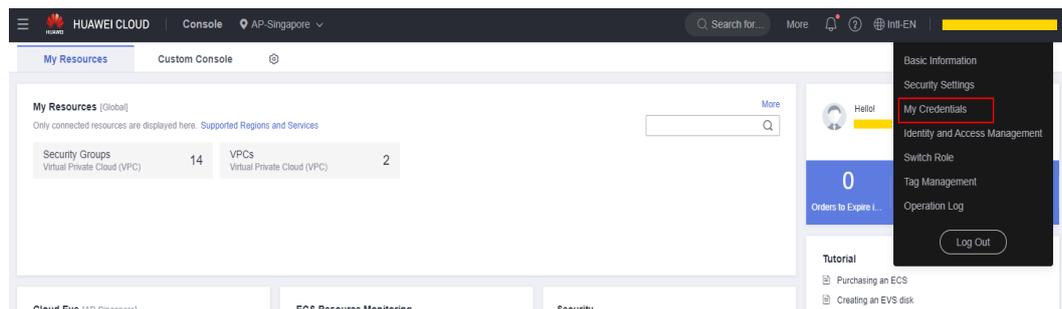
- [Obtaining a Project ID from the Console](#)
- [Obtaining a Project ID by Calling an API](#)

Obtaining a Project ID from the Console

Step 1 Log in to the [console](#).

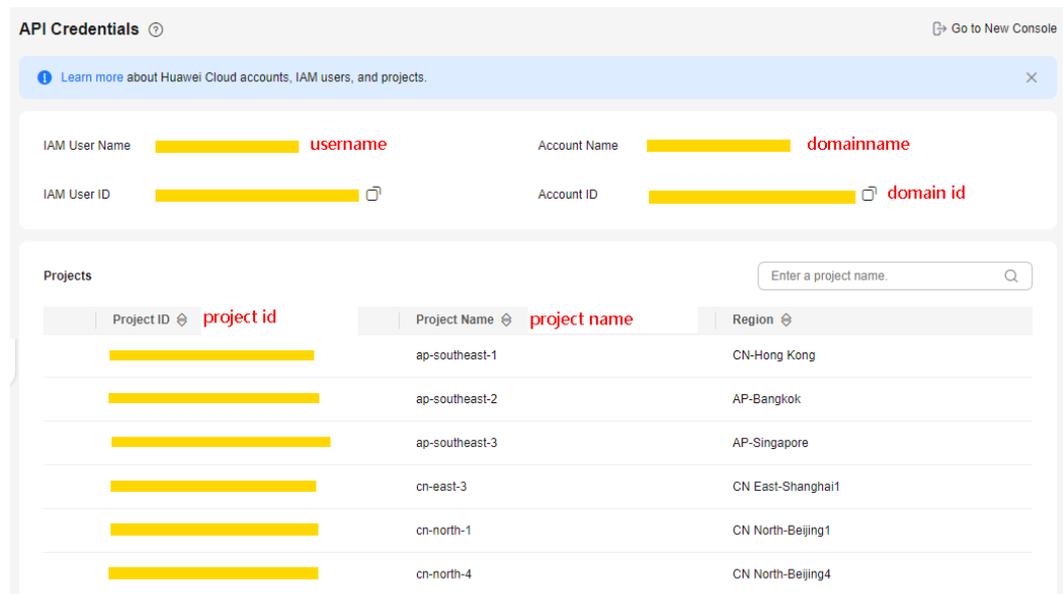
Step 2 Hover over the username in the upper right corner and select **My Credentials** from the drop-down list.

Figure 16-1 Console



Step 3 On the **API Credentials** page, view project IDs in the project list.

Figure 16-2 Obtaining a project ID



----End

Obtaining a Project ID by Calling an API

You can obtain a project ID by calling the API for [querying project information](#).

The API for obtaining a project ID is **GET <https://{Endpoint}/v3/projects/>**. *{Endpoint}* indicates the endpoint of IAM, which can be obtained from [Endpoints](#). For details about API authentication, see [Authentication](#).

The following is an example response. The value of **id** under **projects** is the project ID.

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "region01",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

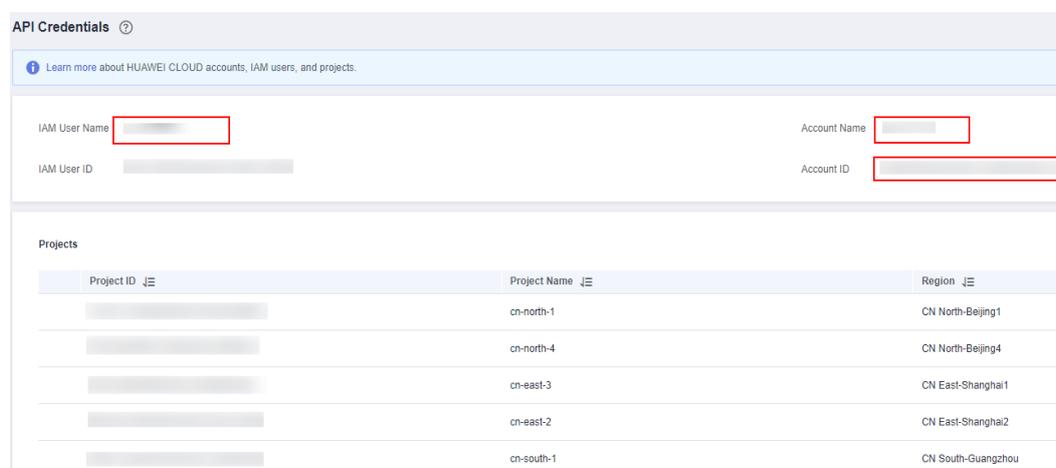
16.4 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following steps:

- Step 1** Log in to the [console](#).
- Step 2** Hover over the username in the upper right corner and select **My Credentials** from the drop-down list.

On the **API Credentials** page, obtain the account ID.

Figure 16-3 Obtaining an account ID



----End

17 Change History

Table 17-1 Change history

Released On	Description
2023-05-04	This issue is the sixteenth official release. Modified the sample code of the API for creating a transcoding template group.
2023-02-02	This issue is the fifteenth official release. <ul style="list-style-type: none"> Deleted the asset_id and dynamic_range parameters from the API for creating a transcoding task. Added the description of the source file format to the API for creating an animated GIF conversion task. Animated GIF conversion, synchronous parsing, and snapshot capturing cannot be performed for M3U8 videos.
2023-01-03	This issue is the fourteenth official release. <ul style="list-style-type: none"> Added the language parameter to the API for creating a transcoding task. Modified the level and channels parameters in the APIs for creating a transcoding task, querying transcoding tasks, creating a transcoding template, updating a transcoding template, querying transcoding templates, creating a transcoding template group, updating a transcoding template group, and querying transcoding template groups.

Released On	Description
2022-12-09	<p>This issue is the thirteenth official release.</p> <ul style="list-style-type: none"> Deleted the black_cut parameter from the APIs for creating, updating, and querying transcoding templates. Deleted the ref_frames_count and aspect_ratio parameters from the APIs for creating, updating, and querying transcoding templates. Deleted the audio_track, multi_audio, and video_process parameters from the API for creating a transcoding task.
2022-11-30	<p>This issue is the twelfth official release.</p> <ul style="list-style-type: none"> Added the APIs for deleting transcoding task records and querying VOD overview to the media file transcoding API group. Added the API for deleting packaging task records to the packaging API group. Added the authorization and configuration API group.
2022-08-26	<p>This issue is the eleventh official release.</p> <ul style="list-style-type: none"> Corrected the format of the APIs for creating a snapshot capturing task, creating a transcoding template group, and updating a watermark template. Corrected the response parameters of the APIs for creating a transcoding task, creating a transcoding template, updating a transcoding template, querying a transcoding template, and querying transcoding template groups.
2022-06-21	<p>This issue is the tenth official release.</p> <p>Modified the preset encoding quality level in the API for creating a transcoding task.</p>
2022-03-17	<p>This issue is the ninth official release.</p> <p>Modified the sample code of the API for creating a transcoding task.</p>
2021-12-27	<p>This issue is the eighth official release.</p> <ul style="list-style-type: none"> Added the unit byte to the description of the size parameter in the API for querying packaging tasks. Added the template_id parameter indicating the watermark template ID to the watermark template APIs.

Released On	Description
2021-11-24	This issue is the seventh official release. Added the description about the maximum number of watermark templates that can be created. By default, 100,000 watermark templates can be created.
2021-11-10	This issue is the sixth official release. <ul style="list-style-type: none"> Deleted the msyh font from the font_name parameter in the API for creating a transcoding task. Currently, only the fzyouh font is supported. Added the hls_init_count parameter to the VideoProcess structure. hls_init_count indicates the number of HLS start segments for which the duration needs to be set. Added the hls_init_interval parameter to the VideoProcess structure. hls_init_interval indicates the HLS segment duration. Deleted the font_name parameter from the API for querying video parsing tasks. Deleted duplicate error codes.
2021-10-29	This issue is the fifth official release. Added regional constraints of calling APIs to section "Before You Start".
2020-12-10	This issue is the fourth official release. Added error code description.
2020-10-14	This issue is the third official release. <ul style="list-style-type: none"> Revised the description of the file_name parameter in the ObsObjInfo structure. This parameter is used only in packaging APIs and specifies the name of the output file. Added the user_data parameter indicating user-defined data to the media transcoding APIs, packaging APIs, and GIF converting APIs. Added the duration_ms parameter indicating the input file duration to the MetaData and SourceInfo structures. Added the dynamic_range parameter indicating the dynamic range type of an input file to the VideoInfo structure.
2020-06-20	This issue is the second official release. <ul style="list-style-type: none"> Added an application example: Submitting a Video Transcoding Task. Added an application example: Submitting a Video Snapshot Task.

Released On	Description
2020-04-01	This issue is the first official release.