

Live

API Reference

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1 Before You Start

Huawei Cloud Live helps you smoothly livestream content to global audience with low latency.

This document describes how to use application programming interfaces (APIs) to perform operations on Live resources, such as transcoding, managing, and recording livestreams. For details about all supported operations, see [API Overview](#).

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

You can configure referer validation, URL validation, and access control lists (ACLs) on the Live console to implement [access control](#) on your content. Only users who meet the configured rules can play videos.

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

Endpoints

An endpoint is the request address for calling an API. Endpoints vary depending on regions. For the endpoints of Live, see [Table 1-1](#).

Table 1-1 Live endpoints

Region Name	Region	Endpoint
EU-Dublin	eu-west-101	live.eu-west-101.myhuaweicloud.eu

Constraints

Live sets a limit on the number of API calls to prevent service interruption caused by repeated API calls in a short period of time.

Table 1-2 API request throttling

API Category	API Name	Max. User Requests	Max. API Requests
Domain name management	• Creating a domain name • Querying domain names	300 times/minute	3,000 times/minute
	• Deleting a domain name • Modifying a domain name • Mapping domain names • Deleting a domain name mapping • Configuring the domain name IPv6 switch • Modifying the HLS configuration of a domain name • Querying HLS configurations of domain names	100 times/minute	1,000 times/minute
	• Modifying the streaming domain name delay • Modifying origin pull settings	30 times/minute	100 times/minute
	• Querying the streaming domain name delay • Querying origin pull settings	30 times/minute	300 times/minute

API Category	API Name	Max. User Requests	Max. API Requests
Transcoding template management	• Creating a transcoding template • Deleting a transcoding template • Modifying a transcoding template • Querying transcoding templates	100 times/minute	1,000 times/minute
Stream management	• Disabling stream push • Modifying the attribute of a disabled stream	4,000 times/minute	12,000 times/minute
	• Querying disabled streams • Resuming stream push	3,000 times/minute	6,000 times/minute
	Pausing stream push	300 times/minute	3,000 times/minute
Notification management	• Adding and modifying stream notification configurations • Querying stream notification configurations • Deleting stream notification configurations	300 times/minute	3,000 times/minute

API Category	API Name	Max. User Requests	Max. API Requests
Authentication	- Configuring a referer validation ACL - Deleting a referer validation ACL - Querying referer validation ACLs - Querying IP ACLs - Modifying an IP ACL - Generating a signed URL	300 times/minute	3,000 times/minute
	Querying supported areas of a streaming domain name	30 times/minute	300 times/minute
	Modifying supported areas of a streaming domain name	30 times/minute	100 times/minute
	- Querying the URL validation configuration of a specified domain name - Modifying the URL validation configuration of a specified domain name - Deleting the URL validation configuration of a specified domain name	150 times/minute	300 times/minute
Log management	Obtaining livestreaming logs	300 times/minute	3,000 times/minute
HTTPS certificate management	Querying HTTPS certificate information	300 times/minute	3,000 times/minute

API Category	API Name	Max. User Requests	Max. API Requests
	- Modifying the HTTPS certificate configuration of a specified domain name - Querying the HTTPS certificate configuration of a specified domain name - Deleting the HTTPS certificate configuration of a specified domain name	150 times/minute	300 times/minute
OBS bucket management	Granting or canceling authorization of accessing OBS buckets	150 times/minute	300 times/minute
Livestreaming watermark management	Creating a watermark template Modifying a watermark template Deleting a watermark template Creating a watermark rule Modifying a watermark rule Deleting a watermark rule Querying watermark rule configurations	50 times/minute	200 times/minute

API Category	API Name	Max. User Requests	Max. API Requests
	Querying watermark templates Querying watermark template configurations Querying watermark rules	300 times/minute	3,000 times/minute
Statistical analysis	Querying the peak bandwidth	20 times/second	200 times/second
	Querying the total playback traffic	20 times/second	300 times/second
	Querying HTTP status codes	30 times/second	300 times/second
	Querying the duration of transcoded outputs	20 times/second	200 times/second
	Querying upstream bandwidth	20 times/second	300 times/second
	Querying the number of streams by domain name	20 times/second	300 times/second
	Querying historical streams	30 times/second	300 times/second
	Querying playback profiles	10 times/second	100 times/second
	Querying the distribution of livestreaming metrics by region	50 times/second	150 times/second
Stream analytics	Querying the stream frame rate	10 times/second	200 times/second
	Querying the stream bitrate	10 times/second	200 times/second

API Category	API Name	Max. User Requests	Max. API Requests
	Querying stream analytics data	10 times/second	200 times/second
	Querying CDN upstream quality data	30 times/second	300 times/second
	Querying ongoing streams	20 times/second	60 times/second

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).

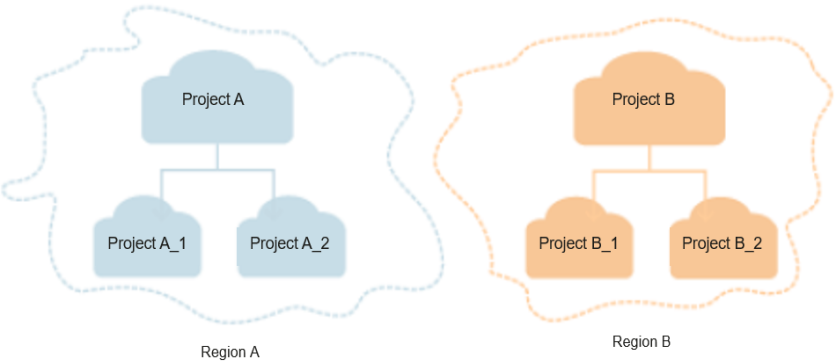
An IAM user can view the account ID and user ID on the My Credentials page of the console. The account, username, and password will be required for API authentication.
- **Region**

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 Live APIs. Before calling a Live API, obtain a user token. The obtained token can then be used to authenticate the calling of other APIs. For details about how to call a Live API, see [Example 1: Creating a Transcoding Template](#).

Domain Name Management APIs

Table 2-1 Domain name management APIs

API	Description
POST /v1/{project_id}/domain	Creating a Domain Name
DELETE /v1/{project_id}/domain	Deleting a Domain Name
PUT /v1/{project_id}/domain	Modifying a Domain Name
GET /v1/{project_id}/domain	Querying Domain Names
PUT /v1/{project_id}/domains_mapping	Mapping Domain Names
DELETE /v1/{project_id}/domains_mapping	Deleting a Domain Name Mapping
PUT /v1/{project_id}/domain/ipv6-switch	Configuring the Domain Name IPv6 Switch
PUT /v1/{project_id}/domain/delay	Modifying the Streaming Domain Name Delay
GET /v1/{project_id}/domain/delay	Querying the Streaming Domain Name Delay
PUT /v1/{project_id}/domain/hls	Modifying the HLS Configuration of a Domain Name
GET /v1/{project_id}/domain/hls	Querying HLS Configurations of Domain Names

API	Description
PUT /v1/{project_id}/domain/pull-sources	Modifying Origin Pull Settings
GET /v1/{project_id}/domain/pull-sources	Querying Origin Pull Settings

Transcoding Template Management APIs

Table 2-2 Transcoding template management APIs

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

Stream Management APIs

Table 2-3 Stream management APIs

API	Description
POST /v1/{project_id}/stream/blocks	Disabling a Push Stream
GET /v1/{project_id}/stream/blocks	Querying Disabled Streams
DELETE /v1/{project_id}/stream/blocks	Resuming a Push Stream
PUT /v1/{project_id}/stream/blocks	Modifying the Attribute of a Disabled Stream
POST /v1/{project_id}/stream/block-once	Pausing Stream Push

Notification Management APIs

Table 2-4 Notification management APIs

API	Description
PUT /v1/{project_id}/notifications/publish	Adding and Modifying Stream Notification Configurations
GET /v1/{project_id}/notifications/publish	Querying Stream Notification Configurations
DELETE /v1/{project_id}/notifications/publish	Deleting Stream Notification Configurations

Access Control APIs

Table 2-5 Access control APIs

API	Description
PUT /v1/{project_id}/guard/referer-chain	Configuring a Referer Validation ACL
DELETE /v1/{project_id}/guard/referer-chain	Deleting a Referer Validation ACL
GET /v1/{project_id}/guard/referer-chain	Querying Referer Validation ACLs
GET /v1/{project_id}/guard/ip	Querying IP Address ACLs
PUT /v1/{project_id}/guard/ip	Modifying an IP Address ACL
POST /v1/{project_id}/auth/chain	Generating a Signed URL
GET /v1/{project_id}/domain/geo-blocking	Querying Supported Areas of a Streaming Domain Name
PUT /v1/{project_id}/domain/geo-blocking	Modifying Supported Areas of a Streaming Domain Name
GET /v1/{project_id}/guard/key-chain	Querying the URL Validation Configuration of a Specified Domain Name
PUT /v1/{project_id}/guard/key-chain	Modifying the URL Validation Configuration of a Specified Domain Name
DELETE /v1/{project_id}/guard/key-chain	Deleting the URL Validation Configuration of a Specified Domain Name

HTTPS Certificate Management APIs

Table 2-6 HTTPS certificate management APIs

API	Description
GET /v2/{project_id}/certificates	Querying HTTPS Certificate Information
PUT /v1/{project_id}/guard/https-cert	Modifying the HTTPS Certificate Configuration of a Specified Domain Name
GET /v1/{project_id}/guard/https-cert	Querying the HTTPS Certificate Configuration of a Specified Domain Name
DELETE /v1/{project_id}/guard/https-cert	Deleting the HTTPS Certificate Configuration of a Specified Domain Name

OBS Bucket Management APIs

Table 2-7 OBS bucket management APIs

API	Description
PUT /v1/{project_id}/obs/authority	Granting or Canceling Authorization of Accessing OBS Buckets

Livestreaming Watermark Management APIs

Table 2-8 Livestreaming watermark management APIs

API	Description
POST /v1/{project_id}/watermark/templates	Creating a Watermark Template
GET /v1/{project_id}/watermark/templates	Querying Watermark Templates
PUT /v1/{project_id}/watermark/templates/{id}	Modifying a Watermark Template
DELETE /v1/{project_id}/watermark/templates/{id}	Deleting a Watermark Template
GET /v1/{project_id}/watermark/templates/{id}	Querying Watermark Template Configurations

API	Description
POST /v1/{project_id}/watermark/rules	Creating a Watermark Rule
GET /v1/{project_id}/watermark/rules	Querying Watermark Rules
PUT /v1/{project_id}/watermark/rules/{id}	Modifying a Watermark Rule
DELETE /v1/{project_id}/watermark/rules/{id}	Deleting a Watermark Rule
GET /v1/{project_id}/watermark/rules/{id}	Querying Watermark Rule Configurations

Statistics Analysis APIs

Table 2-9 Statistics analysis APIs

API	Description
GET /v2/{project_id}/stats/bandwidth/peak	Querying Peak Bandwidth
GET /v2/{project_id}/stats/traffic/summary	Querying Total Traffic
GET /v2/{project_id}/stats/httpcodes	Querying HTTP Status Codes for Pulling Live Streams
GET /v2/{project_id}/stats/transcode	Querying the Duration of Transcoded Outputs
GET /v2/{project_id}/stats/up-bandwidth/detail	Querying Upstream Bandwidth
GET /v2/{project_id}/stats/stream-count	Querying the Number of Stream Push Channels
GET /v2/{project_id}/stats/history/streams	Querying Historical Streams
GET /v2/{project_id}/stats/stream-portraits	Querying Playback Profiles
GET /v2/{project_id}/stats/area/detail	Querying the Distribution of Livestreaming Metrics by Region

Stream Analytics APIs

Table 2-10 Stream analytics APIs

API	Description
GET /v2/{project_id}/stats/stream/framerate	Querying the Stream Frame Rate
GET /v2/{project_id}/stats/stream/bitrate	Querying the Stream Bitrate
GET /v2/{project_id}/stats/stream-detail	Querying Stream Push Monitoring Data
GET /v2/{project_id}/stats/up-stream/detail	Querying CDN Upstream Streaming Quality Data
GET /v1/{project_id}/realtime/streams	Querying Ongoing Streams

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 Dublin is iam.myhuaweicloud.eu .
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 **EU-Dublin** region, obtain the endpoint of IAM (**iam.myhuaweicloud.eu**) 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.myhuaweicloud.eu/v3.0/OS-USER/users
```

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.myhuaweicloud.eu/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	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). After the request is processed, the value of X-Subject-Token in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ

 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.myhuaweicloud.eu/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.myhuaweicloud.eu/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:

```
GET https://iam.myhuaweicloud.eu/v3/auth/projects
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 3-1 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 3-1 Header fields of the response to the request for creating an IAM user

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fcec8a",
"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 Examples

4.1 Example 1: Creating a Transcoding Template

This section describes how to call Live APIs to create 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 Live APIs.

For details, see [Making an API Request](#). **CN North-Beijing4** is used as an example. If you need to call a Live API in another region, replace the endpoint with the IAM endpoint of the region.

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

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "password",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "projectname"
      }
    }
  }
}
```

```
}  
}  
}
```

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

Figure 4-1 Obtaining the 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 → token_global_null_2fed19b42067d0b94ae73dbe0b8b7841  
x-request-id → fd8e4d01ae9ca9f58af20c0db2c88e2  
x-subject-token  
→ M0YdswYVkaZzhwcNAQcCoBvYdCCGGQCAQeDTALBglghkgBZQMEAgEwghhFBgkqhkiG9w0BBwGgghaZBBIWnsidS9rZW4iOnsiZm9waXkiOiJhZC63bWtkaMDUHMzBUMDg6MDI6MzguNTgMDAwWlIdIm1ldGhvdHMiOiJicGFzc3dvcmQ3XSwiY2F0YWw3Lz09Ly9lY29pSwY3Y3upfYauVL-E275QpmEOPG4qKzPv8YeoZhw8Zdfp86AZt-  
RGdrowLe9SinegpR0PGK9gbuRiWYAtdQL3xGxVvC1Um8XJADmwO2TWgblmzPwFbvhP3f20TK4v9XhwWHUxH2yfo+KScgoXhAze6VURCIWMDV+UeE5wZo7v8Z2C77p289d8Blyb3oQeZmTyrIaupZl6U4PK2J+rW4plwEszdvrRQLLYOzxinGG3Af  
x-xss-protection → 1; mode=block
```

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

POST https://live.cn-north-4.myhuaweicloud.com/v1/{project_id}/template/transcodings

live.cn-north-4.myhuaweicloud.com is the endpoint of Live. You can obtain the endpoint from [Before You Start](#).

NOTE

The region where an IAM API is called must be the same as the region where a Live 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 Live 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 Add the following parameters to the request message body. For more information about the parameters, see the API for [creating a transcoding template](#).

```
{  
  "domain": "play.example.com",  
  "app_name": "live",  
  "quality_info":  
  [  
    {  
      "templateName": "",  
      "quality": "lsd",  
      "hdlb": "off",  
      "PVC": "off",  
      "codec": "H264",  
      "width": 854,  
      "height": 480,  
      "bitrate": 600,  
      "video_frame_rate": 0,  
      "protocol": "HLS",  
      "iFrameInterval": 0  
    }  
  ]  
}
```

```
}  
]  
}
```

If the request succeeds, only a status code 201 Created is returned.

If the request fails, the following error code and error description are returned along with a status code 400 Bad Request:

```
"error_code": "LIVE.100011001",  
"error_msg": "Failed to verify template settings."
```

----End

4.2 Example 3: Disabling a Livestream

Scenario

If live content is non-compliant or the ingest URL has been used by unauthorized users, you can call an API to disable the livestream to protect your content.

This section describes how to disable a livestream by calling an API.

Prerequisites

- You have determined the region where the ingest domain name for which a livestream needs to be disabled is located and obtained the endpoint of the region from .
- You have obtained the project ID of the region where the ingest domain name is located. For details, see [Obtaining a Project ID](#).

Overall Process

- [Obtain information about the livestream to be disabled](#).
- [Disable the livestream](#).
- [Query disabled streams](#).

Procedure

Step 1 Log in to the Live console and choose **Streaming > Streams** to obtain information about the livestream to be disabled, including the ingest domain name, **App Name**, and **Stream Name**.

Step 2 [Obtain a user token](#) and use it to authenticate the calling of Live APIs.

For details, see [Making an API Request](#). **CN North-Beijing4** is used as an example. If you need to call a Live API in another region, replace the endpoint with the IAM endpoint of the region.

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

```
    },
    "password": {
      "user": {
        "name": "username",
        "password": "password",
        "domain": {
          "name": "domainname"
        }
      }
    }
  },
  "scope": {
    "project": {
      "name": "projectname"
    }
  }
}
```

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

Figure 4-2 Obtaining the 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 → token_global_null_2fed19b42067d0b94ae73dbe0b8b7841
x-request-id → fd8e4d01ae9ca9f58af20c8db2c88e2
x-subject-token → MIIYdWVJKoZlhcNAQcC0llYDCCGQCAQExDTALBglnhig8ZQMEAgEwghbF8gkqhkG9w0BBwGggha28llWnsndG9rZW4iOnsiZGhwaXUlc19hdCI6ImVtMktMDUIMzBMDG6MD6MzguNTgxMDAwWlslbm1ldGhvdHMiOiScGfzc3dvcnQkXSwiY2F0YWwzYy9lY2Np5wYyRlY3R3pffQAUVL-E275QpmEOPG4qGp4Yee2H6ZDFpB6A2t-RGdrolWes5lregeR0P0G8g9uRwYATqQL3uGxvVC1Um8XJADmw02TWgglmsrPwFbvhP3F20TKA+9XhvWHUkH2yfo+KScgoXHAzv6VURCWMdV+UeSswZn7v822C77p289d88y63eQoZmTylauPZl6UAPX21+rW4aplwEszdrRQLLYOzxinGG3Af
x-xss-protection → 1; mode=block
```

Step 3 Call the API for [disabling a push stream](#) and configure related parameters.

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

```
{
  "domain": "publish.example.huawei.com",
  "app_name": "live",
  "stream_name": "huawei",
  "resume_time": "2020-05-19T21:10:15Z"
}
```

resume_time specifies the time of resuming stream push. The value is a UTC time in the format of yyyy-mm-ddThh:mm:ssZ. If this parameter is not specified, the value defaults to seven days. The maximum value is 90 days. **resume_time** cannot be earlier than the current time.

4. If the request succeeds, only a status code 204 is returned.

Step 4 Call the API for **querying disabled streams** to check whether the stream is included in the returned list.

1. Select the GET request method and enter the request URI.
`https://{endpoint}/v1/{project_id}/stream/blocks?
domain=publish.example.huawei.com&app_name=live&stream_name=huawei`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in [2](#).
3. View the queried stream information if the request succeeds.

```
{  
  "total" : 1,  
  "blocks" : [ {  
    "app_name" : "live",  
    "stream_name" : "huawei",  
    "resume_time" : "2020-05-19T21:10:15Z"  
  }  
]
```

----End

5 Domain Name Management

5.1 Creating a Domain Name

Function

This API is used to create a streaming domain name or ingest domain name. You can create up to 64 domain names.

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
live:domain:createDomain	Write	-	-	-	-

URI

POST /v1/{project_id}/domain

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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-3 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.
domain_type	Yes	String	Domain name type. • pull: streaming domain name • push: ingest domain name
region	Yes	String	Live center to which a live streaming channel belongs.

Parameter	Mandatory	Type	Description
service_area	No	String	Domain name acceleration area. - mainland_china: Chinese mainland - outside_mainland_china: Outside the Chinese mainland - global: Global acceleration
enterprise_project_id	No	String	Enterprise project ID
pull_protocol	No	String	Stream pull protocol supported by the domain name. This parameter is valid only when domain_type is set to pull . - flv_rtmp: FLV and RTMP - hls: HLS If this parameter is not specified, FLV and RTMP are supported by default.

Response Parameters

Status code: 201

Table 5-4 Response body parameters

Parameter	Type	Description
domain	String	Domain name.
domain_type	String	Domain name type. pull: streaming domain name push: ingest domain name
domain_cname	String	CNAME record of the domain name.
region	String	Region where the origin server is
status	String	Status of the domain name. on: enabled off: disabled configuring: configuring

Parameter	Type	Description
create_time	String	Time when the domain name was created. The value is in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
status_describe	String	Status description.
service_area	String	Domain name acceleration area. - mainland_china: Chinese mainland - outside_mainland_china: Outside the Chinese mainland - global: Global acceleration
enterprise_project_id	String	Enterprise project ID
pull_protocol	String	Stream pull protocol supported by the domain name. This parameter is valid only when domain_type is set to pull . - flv_rtmp: FLV and RTMP - hls: HLS

Status code: 400

Table 5-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Creates a streaming domain name. The domain name is **play.example.com**, an ingest domain name in CN North-Beijing4.

POST https://{endpoint}/v1/{project_id}/domain

```
{
  "domain": "play.example.com",
  "domain_type": "pull",
  "region": "cn-north-4"
}
```

Example Responses

Status code: 201

Domain name created.

```
{
  "domain" : "play.example.com",
  "domain_type" : "pull",
  "domain_cname" : "play.example.com.cdnhwc3.com",
  "region" : "region1",
  "status" : "configuring",
  "create_time" : "2020-01-19T02:57:00Z"
}
```

Status code: 400

Incorrect parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
201	Domain name created.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

5.2 Deleting a Domain Name

Function

This API is used to delete a domain name. Only domain names in the **off** state 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
live:domain:deleteDomain	Write	-	-	-	-

URI

DELETE /v1/{project_id}/domain

Table 5-6 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 .

Table 5-7 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.

Request Parameters

Table 5-8 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.

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

Response Parameters

Status code: 204

Domain name deleted.

Status code: 400

Table 5-9 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Deletes a domain name.

```
DELETE https://{endpoint}/v1/{project_id}/domain?domain=play.example.com
```

Example Responses

Status code: 400

Failed to delete the domain name.

```
{
  "error_code" : "LIVE.103011022",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Domain name deleted.
400	Failed to delete the domain name.

Error Codes

See [Error Codes](#).

5.3 Modifying a Domain Name

Function

This API is used to modify details about a streaming domain name or an ingest domain name.

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
live:domain:updateDomain	Write	-	-	-	-

URI

PUT /v1/{project_id}/domain

Table 5-10 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 .

Request Parameters

Table 5-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-12 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name, which cannot be changed.
status	No	String	Status of the domain name. • on: enabled • off: disabled • configuring: configuring You can modify this parameter to enable or disable the domain name. You cannot enable or disable a domain name that is being configured.
enterprise_project_id	No	String	Enterprise project ID

Response Parameters

Status code: 200

Table 5-13 Response body parameters

Parameter	Type	Description
domain	String	Domain name.
domain_type	String	Domain name type. • pull: streaming domain name • push: ingest domain name
domain_cname	String	CNAME record of the domain name.
region	String	Region where the origin server is
status	String	Status of the domain name. • on: enabled • off: disabled • configuring: configuring
create_time	String	Time when the domain name was created. The value is in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
status_describe	String	Status description.
service_area	String	Domain name acceleration area. • mainland_china: Chinese mainland • outside_mainland_china: Outside the Chinese mainland • global: Global acceleration
enterprise_project_id	String	Enterprise project ID
pull_protocol	String	Stream pull protocol supported by the domain name. This parameter is valid only when domain_type is set to pull . • flv_rtmp: FLV and RTMP • hls: HLS

Status code: 400

Table 5-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

Example Requests

Changes the status of a domain name to **Disabled**.

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

```
{
  "domain": "play.example.com",
  "status": "off"
}
```

Example Responses

Status code: 200

Domain name modified.

```
{
  "domain": "play.example.com",
  "domain_type": "pull",
  "domain_cname": "play.example.com.cdnhwc3.com",
  "region": "region1",
  "status": "off",
  "create_time": "2020-01-19T02:57:00Z"
}
```

Status code: 400

Incorrect parameter.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Domain name modified.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

5.4 Querying a Domain Name

Function

This API is used to query a domain name.

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
live:domains:getDomains	Read	-	-	-	-

URI

GET /v1/{project_id}/domain

Table 5-15 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 5-16 Query Parameters

Parameter	Mandatory	Type	Description
domain	No	String	Domain name. If this parameter is not specified, all domain names under your account are returned.
enterprise_project_id	No	String	Enterprise project ID. If this parameter is not specified, information about all domain names is returned.

Request Parameters

Table 5-17 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 5-18 Response body parameters

Parameter	Type	Description
total	Number	Total number of records in the query result.
domain_info	Array of DecoupledLiveDomainInfo objects	Domain name list.

Table 5-19 DecoupledLiveDomainInfo

Parameter	Type	Description
domain	String	Domain name.
domain_type	String	Domain name type. • pull: streaming domain name • push: ingest domain name
vendor	String	CDN vendor.
region	String	Region where the origin server is
domain_cname	String	CNAME record of the domain name.
status	String	Status of the domain name. • on: enabled • off: disabled • configuring: configuring
related_domain	String	Ingest domain name associated with the streaming domain name. This parameter is valid only when domain_type is set to pull .
create_time	String	Time when the domain name was created. The value is in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
status_describe	String	Status description.
service_area	String	Domain name acceleration area. • mainland_china: Chinese mainland • outside_mainland_china: Outside the Chinese mainland • global: Global acceleration
enterprise_project_id	String	Enterprise project ID

Parameter	Type	Description
is_ipv6	Boolean	Specifies whether to enable the IPv6 function. true indicates that IPv6 is enabled, and false indicates that IPv6 is disabled or the value is empty. The default value is false .
pull_protocol	String	Stream pull protocol supported by the domain name. This parameter is valid only when domain_type is set to pull . - flv_rtmp: FLV and RTMP - hls: HLS

Status code: 404

Table 5-20 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries domain names.

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

Example Responses

Status code: 200

Query succeeded.

```
{
  "total": 2,
  "domain_info": [ {
    "domain": "play.example.huawei.com",
    "domain_type": "pull",
    "vendor": "uCDN",
    "domain_cname": "play.example.huawei.com.cdnhwc3.com",
    "region": "region1",
    "status": "on",
    "related_domain": "publish.example.huawei.com",
    "create_time": "2020-01-19T02:57:00Z"
  }, {
    "domain": "publish.example.huawei.com",
    "domain_type": "push",
    "vendor": "uCDN",
    "domain_cname": "publish.example.huawei.com.cdnhwc3.com",
    "region": "region1",
    "status": "on",
    "related_domain": ""
  }
]
```

```
"create_time" : "2020-01-19T02:58:00Z"
} ]
}
```

Status code: 404

Query failed.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Query succeeded.
404	Query failed.

Error Codes

See [Error Codes](#).

5.5 Mapping Domain Names

Function

This API is used to map a streaming domain name and an ingest domain name.

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
live:domain:createDomainsMapping	Write	-	-	-	-

URI

PUT /v1/{project_id}/domains_mapping

Table 5-21 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 5-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-23 Request body parameters

Parameter	Mandatory	Type	Description
pull_domain	Yes	String	Streaming domain name.
push_domain	Yes	String	Ingest domain name associated with the streaming domain name.

Response Parameters

Status code: 200

Table 5-24 Response body parameters

Parameter	Type	Description
pull_domain	String	Streaming domain name.
push_domain	String	Ingest domain name associated with the streaming domain name.

Status code: 404

Table 5-25 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Creates a domain name mapping. The streaming domain name is **play.example.com**, and the ingest domain name is **publish.example.com**.

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

```
{
  "pull_domain": "play.example.com",
  "push_domain": "publish.example.com"
}
```

Example Responses

Status code: 200

Domain names mapped.

```
{
  "pull_domain": "play.example.com",
}
```

```
{
  "push_domain" : "publish.example.com"
}
```

Status code: 404

Failed to map the domain names.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Domain names mapped.
404	Failed to map the domain names.

Error Codes

See [Error Codes](#).

5.6 Deleting a Domain Name Mapping

Function

This API is used to delete the mapping between a streaming domain name and an ingest domain name.

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
live:domain:deleteDomainsMapping	Write	-	-	-	-

URI

DELETE /v1/{project_id}/domains_mapping

Table 5-26 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 5-27 Query Parameters

Parameter	Mandatory	Type	Description
pull_domain	Yes	String	Streaming domain name.
push_domain	Yes	String	Ingest domain name.

Request Parameters

Table 5-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

The Live domain name mapping has been deleted.

Status code: 400

Table 5-29 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/domains_mapping?  
pull_domain=play.example.huawei.com&push_domain=publish.example.huawei.com
```

Example Responses

Status code: 400

Failed to delete the domain name mapping.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Request Illegal"  
}
```

Status Codes

Status Code	Description
204	The Live domain name mapping has been deleted.

Status Code	Description
400	Failed to delete the domain name mapping.

Error Codes

See [Error Codes](#).

5.7 Configuring the Domain Name IPv6 Function

Function

Configures the IPv6 function

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}/domain/ipv6-switch

Table 5-30 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 5-31 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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.

Table 5-32 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name
is_ipv6	No	Boolean	Specifies whether to enable the IPv6 function. true indicates that IPv6 is enabled, and false indicates that IPv6 is disabled. The default value is false .

Response Parameters

Status code: 200

IPv6 has been configured.

Status code: 400

Table 5-33 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Changes IPv6 of a domain name. The domain name is **example.com**. IPv6 is enabled.

```
PUT https://{endpoint}/v1/{project_id}/domain/ipv6-switch
{
  "domain" : "example.com",
  "is_ipv6" : true
}
```

Example Responses

Status code: 400

The parameter is incorrect.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	IPv6 has been configured.
400	The parameter is incorrect.

Error Codes

See [Error Codes](#).

5.8 Modifying the Streaming Domain Name Delay

Function

Modifies the streaming domain name delay.

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}/domain/delay
```

Table 5-34 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 5-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-36 Request body parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.
app	No	String	Application name. The default value is live .
delay	Yes	Integer	Indicates the delay, in ms. The options are as follows: • 2000 (low) • 4000 (medium) • 6000 (high)

Response Parameters

Status code: 200

Streaming domain name delay modified.

Status code: 400

Table 5-37 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies the streaming domain name delay.

```
PUT https://{endpoint}/v1/{project_id}/domain/delay
```

```
{
  "play_domain" : "pull.example.test.com",
  "app" : "live",
  "delay" : 2000
}
```

Example Responses

Status code: 400

Invalid parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Streaming domain name delay modified.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.9 Querying the Streaming Domain Name Delay

Function

Queries the streaming domain name delay.

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}/domain/delay

Table 5-38 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 5-39 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 5-40 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200**Table 5-41** Response body parameters

Parameter	Type	Description
play_domain	String	Streaming domain name.
delay_config	Array of DelayConfig objects	Live delay configuration.

Table 5-42 DelayConfig

Parameter	Type	Description
app	String	Application name. The default value is live .

Parameter	Type	Description
delay	Integer	Indicates the delay, in ms. The options are as follows: • 2000 (low) • 4000 (medium) • 6000 (high)

Status code: 400

Table 5-43 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries the streaming domain name delay.

```
GET https://{endpoint}/v1/{project_id}/domain/delay?play_domain=pull.example.test.com
```

Example Responses

Status code: 200

Streaming domain name delay queried.

```
{
  "play_domain": "pull.example.test.com",
  "delay_config": [ {
    "app": "live",
    "delay": 6000
  } ]
}
```

Status code: 400

Invalid parameter.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Streaming domain name delay queried.

Status Code	Description
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.10 Modifying the HLS Configuration of a Domain Name

Function

Modifies the HLS configuration of a domain name.

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}/domain/hls

Table 5-44 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 5-45 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-46 Request body parameters

Parameter	Mandatory	Type	Description
push_domain	Yes	String	Ingest domain name
application	Yes	Array of PushDomainApplication objects	Ingest domain name app configuration

Table 5-47 PushDomainApplication

Parameter	Mandatory	Type	Description
name	No	String	App name. The default value is live .
hls_fragment	No	Integer	HLS segment duration, in second.
hls_ts_count	No	Integer	Number of TS segments in each M3U8 file

Parameter	Mandatory	Type	Description
hls_min_frgs	No	Integer	Minimum number of TS segments in each M3U8 file

Response Parameters

Status code: 200

Table 5-48 Response body parameters

Parameter	Type	Description
push_domain	String	Ingest domain name
application	Array of PushDomainApplication objects	Ingest domain name app configuration

Table 5-49 PushDomainApplication

Parameter	Type	Description
name	String	App name. The default value is live .
hls_fragment	Integer	HLS segment duration, in second.
hls_ts_count	Integer	Number of TS segments in each M3U8 file
hls_min_frgs	Integer	Minimum number of TS segments in each M3U8 file

Status code: 400

Table 5-50 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies the HLS configuration of a domain name.

```
PUT https://{endpoint}/v1/{project_id}/domain/hls
```

```
{
  "push_domain" : "push.example.com",
  "application" : [ {
    "name" : "live",
    "hls_fragment" : 2,
    "hls_ts_count" : 3,
    "hls_min_frgs" : 3
  } ]
}
```

Example Responses

Status code: 400

Invalid parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	HLS configuration of the domain name modified.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.11 Querying HLS Configurations of Domain Names

Function

Queries HLS configurations of domain names.

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}/domain/hls

Table 5-51 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 5-52 Query Parameters

Parameter	Mandatory	Type	Description
push_domain	Yes	String	Ingest domain name

Request Parameters

Table 5-53 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 5-54 Response body parameters

Parameter	Type	Description
push_domain	String	Ingest domain name
application	Array of PushDomainApplication objects	Ingest domain name app configuration

Table 5-55 PushDomainApplication

Parameter	Type	Description
name	String	App name. The default value is live .
hls_fragment	Integer	HLS segment duration, in second.
hls_ts_count	Integer	Number of TS segments in each M3U8 file
hls_min_frgs	Integer	Minimum number of TS segments in each M3U8 file

Status code: 400

Table 5-56 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries HLS configurations of domain names.

```
GET https://{endpoint}/v1/{project_id}/domain/hls?push_domain=push.example.com
```

Example Responses

Status code: 200

HLS configurations of domain names queried.

```
{
  "push_domain": "push.example.com",
  "application": [ {
    "name": "live",
    "hls_fragment": 2,
    "hls_ts_count": 3,
    "hls_min_frgs": 3
```

```
}]  
}
```

Status code: 400

Invalid parameter.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Request Illegal"  
}
```

Status Codes

Status Code	Description
200	HLS configurations of domain names queried.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.12 Modifying Origin Pull Settings

Function

Modifies origin pull settings. Only RTMP and FLV domain names are supported.

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}/domain/pull-sources

Table 5-57 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 5-58 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-59 Request body parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Parameter	Mandatory	Type	Description
source_type	Yes	String	Origin pull method. The options are as follows: • domain: Origin pull from the customer's origin server. The origin server address is in the domain name format. Multiple domain names for origin pull can be configured. If origin pull fails, domain names are polled based on the configured sequence until origin pull succeeds. • ipaddr: Origin pull from the customer's origin server. The origin server address is in the IP address format. Multiple IP addresses for origin pull can be configured. If origin pull fails, IP addresses are polled based on the configured sequence until origin pull succeeds. A maximum of one domain name for origin pull can be configured. During origin pull, set the header of httpflv HOST and the RTMP tcurl field to the configured domain name, respectively. Otherwise, the current IP address is used as the HOST. • huawei: Origin pull from the Huawei origin server. The default value after the domain name is created is used.

Parameter	Mandatory	Type	Description
sources	No	Array of strings	Domain names for origin pull. A maximum of 10 domain names are allowed. • This parameter is mandatory when the value is domain. If multiple domain names are configured and origin pull fails, domain names are polled based on the configured sequence until origin pull succeeds. • A maximum of one domain name for origin pull can be configured when the value is ipaddr. During origin pull, set the header of httpflv HOST and the RTMP tcurl field to the configured domain name, respectively. Otherwise, the current IP address is used as the HOST.
sources_ip	No	Array of strings	IP addresses for origin pull. A maximum of 10 IP addresses are allowed. This parameter is mandatory when the value is ipaddr. If multiple IP addresses are configured and origin pull fails, IP addresses are polled based on the configured sequence until origin pull succeeds.
source_port	No	Integer	Origin pull port.
scheme	No	String	Origin pull protocol. This parameter is mandatory when the origin pull method is not huawei. The options are as follows: • http • rtmp

Parameter	Mandatory	Type	Description
additional_args	No	Map<String,String>	Parameter carried in the URL for origin pull from the customer's origin server. • The number of key-value pairs carried cannot exceed 50. • The total length of all parameter names and values cannot exceed 1,024 characters.

Response Parameters

Status code: 200

Origin pull settings modified.

Status code: 400

Table 5-60 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies origin pull settings. Only RTMP and FLV domain names are supported.

PUT https://{endpoint}/v1/{project_id}/domain/pull-sources

```
{
  "play_domain": "pull.example.test.com",
  "source_type": "domain",
  "sources": [ "example1.test.com", "example2.test.com" ],
  "scheme": "http",
  "additional_args": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

Example Responses

Status code: 400

Invalid parameter.

```
{
  "error_code": "LIVE.100011001",
}
```

```
"error_msg": "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Origin pull settings modified.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.13 Querying Origin Pull Settings

Function

Queries origin pull settings. Only RTMP and FLV domain names are supported.

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}/domain/pull-sources

Table 5-61 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 5-62 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 5-63 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 5-64 Response body parameters

Parameter	Type	Description
play_domain	String	Streaming domain name.

Parameter	Type	Description
source_type	String	Origin pull method. • domain: Origin pull from the customer's origin server. The origin server address is in the domain name format. Multiple domain names for origin pull can be configured. If origin pull fails, domain names are polled based on the configured sequence until origin pull succeeds. • ipaddr: Origin pull from the customer's origin server. The origin server address is in the IP address format. Multiple IP addresses for origin pull can be configured. If origin pull fails, IP addresses are polled based on the configured sequence until origin pull succeeds. A maximum of one domain name for origin pull can be configured. During origin pull, set the header of httpflv HOST and the RTMP tcurl field to the configured domain name, respectively. Otherwise, the current IP address is used as the HOST. • huawei: Origin pull from the Huawei origin server. The default value after the domain name is created is used.
sources	Array of strings	Domain names for origin pull. A maximum of 10 domain names are allowed. • This parameter is mandatory when the value is domain. If multiple domain names are configured and origin pull fails, domain names are polled based on the configured sequence until origin pull succeeds. • A maximum of one domain name for origin pull can be configured when the value is ipaddr. During origin pull, set the header of httpflv HOST and the RTMP tcurl field to the configured domain name, respectively. Otherwise, the current IP address is used as the HOST.

Parameter	Type	Description
sources_ip	Array of strings	IP addresses for origin pull. A maximum of 10 IP addresses are allowed. This parameter is mandatory when the value is ipaddr . If multiple IP addresses are configured and origin pull fails, IP addresses are polled based on the configured sequence until origin pull succeeds.
source_port	Integer	Origin pull port.
scheme	String	Origin pull protocol. This parameter is mandatory when the origin pull method is not huawei .
additional_args	Map<String,String>	Parameter carried in the URL for origin pull from the customer's origin server.

Status code: 400

Table 5-65 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries origin pull settings. Only RTMP and FLV domain names are supported.

GET https://{endpoint}/v1/{project_id}/domain/pull-sources?play_domain=pull.example.test.com

Example Responses

Status code: 200

Origin pull settings queried.

```
{
  "play_domain": "pull.example.test.com",
  "source_type": "domain",
  "sources": [ "example1.test.com", "example2.test.com" ],
  "scheme": "http",
  "additional_args": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

Status code: 400

Invalid parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Origin pull settings queried.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

5.14 Verifying Domain Name Ownership

Function

This API is used to verify the ownership of a domain name to be added.

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

POST /v1/{project_id}/domain/verification

Table 5-66 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 5-67 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 5-68 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.
verify_type	Yes	String	Verification method. The options are DNS (DNS resolution verification) and FILE (file verification).

Response Parameters

Status code: 200

Table 5-69 Response body parameters

Parameter	Type	Description
domain	String	Primary domain name.
verify_content	String	Verification value, which is the DNS record value or file content.

Parameter	Type	Description
verify_result	Boolean	Verification result. true indicates that the verification is successful and the ownership is confirmed. false indicates that the ownership is not confirmed.

Status code: 400

Table 5-70 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Verifies the ownership of a domain name.

```
POST https://{endpoint}/v1/{project_id}/domain/verification
{
  "domain" : "pull.example.com",
  "verify_type" : "DNS"
}
```

Example Responses

Status code: 200

Request succeeded.

```
{
  "domain" : "example.com",
  "verify_content" : "liveauth_35437cc60f99bc14d6f51528a5496b9d96582828bd506ba74785fdea90c094b2",
  "verify_result" : true
}
```

Status code: 400

Request failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Request succeeded.

Status Code	Description
400	Request failed.

Error Codes

See [Error Codes](#).

5.15 Querying Domain Ownership Verification Information

Function

This API is used to query the domain name ownership verification information.

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}/domain/verification

Table 5-71 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 5-72 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.

Request Parameters

Table 5-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 5-74 Response body parameters

Parameter	Type	Description
domain	String	Primary domain name.
verify_content	String	Verification value, which is the DNS record value or file content.
verify_result	Boolean	Verification result. true indicates that the verification is successful and the ownership is confirmed. false indicates that the ownership is not confirmed.

Status code: 400

Table 5-75 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries the domain name ownership verification information.

```
GET https://{endpoint}/v1/{project_id}/domain/verification?domain=push.example.com
```

Example Responses

Status code: 200

Domain ownership verification information queried successfully.

```
{
  "domain" : "example.com",
  "verify_content" : "liveauth_35437cc60f99bc14d6f51528a5496b9d96582828bd506ba74785fdea90c094b2",
  "verify_result" : true
}
```

Status code: 400

Invalid parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Domain ownership verification information queried successfully.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

6 Transcoding Template Management

6.1 Creating a Transcoding Template

Function

Creates a transcoding template. Using this function will incur live transcoding fees.

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
live:transcode:createTranscodingsTemplate	Write	-	-	-	-

URI

POST /v1/{project_id}/template/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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 6-3 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app_name	Yes	String	Application name.

Parameter	Mandatory	Type	Description
trans_type	No	String	Transcoding stream triggering mode. • play: Transcoding is triggered by stream pull. • publish: Transcoding is triggered by stream push. The default value is play .
quality_info	Yes	Array of QualityInfo objects	Video quality information.

Table 6-4 QualityInfo

Parameter	Mandatory	Type	Description
quality	Yes	String	The options are as follows: • lud: ultra HD (default name) • lhd: HD (default name) • lsd: SD (default name) • lld: smooth (default name) • userdefine: custom video quality. When userdefine is specified, the templateName field cannot be empty.
templateName	No	String	Custom template name. • The name of a custom template can contain a maximum of 32 characters. • To customize a template name, set quality to userdefine. • The name of each custom template must be unique. • A custom template cannot have the same quality settings as any another template. • If quality is not set to userdefine, do not set this parameter.

Parameter	Mandatory	Type	Description
PVC	No	String	Indicates whether to use narrowband HD transcoding. Note: This field is no longer used. Use hdlb instead. The options are as follows: • off: disabled • on: enabled Default value: off
hdlb	No	String	Indicates whether to enable low-bitrate HD. The image quality is better than PVC. Note: When the hdlb field is used to enable low-bitrate HD, the PVC field does not take effect. The options are as follows: • off: Low-bitrate HD is disabled. • on: Low-bitrate HD is enabled. Default value: off
codec	No	String	Video encoding format. The options are as follows: • H264: H.264 is used. • H265: H.265 is used. The default value is H264.

Parameter	Mandatory	Type	Description
width	No	Integer	Long side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the long side. Unit: pixel. The options are as follows: • When codec is set to H264, the recommended value range of width is [32, 3840], and the value must be an integer multiple of 2. • When codec is set to H265, the recommended value range of width is [320, 3840], and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0

Parameter	Mandatory	Type	Description
height	No	Integer	Short side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the short side. Unit: pixel. The options are as follows: - When codec is set to H264, the recommended value range of height is [32, 2160] and the value must be an integer multiple of 2. - When codec is set to H265, the recommended value range of height is [240, 2160] and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0
bitrate	Yes	Integer	Bitrate of the transcoded video. Unit: kbit/s Value range: 40–30,000
video_frame_rate	No	Integer	Frame rate of the transcoded video. Unit: FPS Value range: 0–60. The value 0 indicates that the frame rate remains unchanged. Default value: 0
protocol	No	String	Protocol type supported by transcoded outputs. The default value is RTMP. Currently, only RTMP is supported. The options are as follows: RTMP

Parameter	Mandatory	Type	Description
iFrameInterval	No	Integer	Maximum I-frame interval. Unit: number of frames Value range: 0–500. Default value: 50 . Note: To set the I-frame interval using iFrameInterval , set gop to 0 .
gop	No	Integer	I-frame interval by time. Unit: second Value range: 0–10. Default value: 2 . Note: If gop is not 0 , the I-frame interval is set based on gop , and the iFrameInterval field does not take effect.
bitrate_adaptive	No	String	Adaptive bitrate parameter. The options are as follows: • off: Bitrate adaptation is disabled. The target bitrate is output as specified. • minimum: The target bitrate is the smaller value between the specified bitrate and the bitrate of the source file. That is, the bitrate does not increase. • adaptive: The target bitrate is adaptive to the bitrate of the source file. Default value: off

Parameter	Mandatory	Type	Description
i_frame_policy	No	String	Policy for outputting I-frames during encoding. The options are as follows: • auto: I-frames are output based on the configured GOP duration. • strictSync: The output I-frames are the same as those of the source. If the source contains I-frames, the output I-frames are encoded. If the source does not contain I-frames, the output non-I-frames are encoded. After this parameter is set, the GOP duration is invalid. Default value: auto

Response Parameters

Status code: 201
Transcoding template created successfully.

Status code: 400

Table 6-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Creates a transcoding template. Set the application name to **live**, transcoding quality to SD, transcoding format to H.264, width to 1920 pixels, and height to 1080 pixels.

```
POST https://{endpoint}/v1/{project_id}/template/transcodings
{
  "domain" : "play.example.com",
  "app_name" : "live",
  "quality_info" : [ {
    "quality" : "lsd",
    "hdlb" : "off",
    "codec" : "H264",
```

```
{
  "width" : 1920,
  "height" : 1080,
  "bitrate" : 4500,
  "video_frame_rate" : 20,
  "gop" : 4
}, {
  "quality" : "userdefine",
  "templateName" : "yourTemplateName",
  "hdlb" : "off",
  "codec" : "H264",
  "width" : 1920,
  "height" : 1080,
  "bitrate" : 4500,
  "video_frame_rate" : 20,
  "gop" : 4
}]
}
```

Example Responses

Status code: 400

Failed to create a transcoding template.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

6.2 Deleting a Transcoding Template

Function

This API is used to delete 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
live:transcode:deleteTranscodingsTemplate	Write	-	-	-	-

URI

DELETE /v1/{project_id}/template/transcodings

Table 6-6 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 .

Table 6-7 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app_name	Yes	String	Application name.

Request Parameters

Table 6-8 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

The Live transcoding template has been deleted.

Status code: 400

Table 6-9 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Deletes a transcoding template.

```
DELETE https://{endpoint}/v1/{project_id}/template/transcodings?  
domain=play.example.com&app_name=live
```

Example Responses

Status code: 400

Failed to delete the transcoding template.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	The Live transcoding template has been deleted.
400	Failed to delete the transcoding template.

Error Codes

See [Error Codes](#).

6.3 Modifying a Transcoding Template

Function

This API is used to modify a transcoding template.

NOTE

When modifying a transcoding template, the Live service directly overwrites the configuration in the request. Therefore, the request content must contain all template information for the domain and application, that is, all items in the **quality_info** array must be included.

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
live:transcode:updateTranscodingsTemplate	Write	-	-	-	-

URI

PUT /v1/{project_id}/template/transcodings

Table 6-10 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 .

Request Parameters

Table 6-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 6-12 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app_name	Yes	String	Application name.
trans_type	No	String	Transcoding stream triggering mode. • play: Transcoding is triggered by stream pull. • publish: Transcoding is triggered by stream push. The default value is play .
quality_info	Yes	Array of QualityInfo objects	Video quality information.

Table 6-13 QualityInfo

Parameter	Mandatory	Type	Description
quality	Yes	String	The options are as follows: • lud: ultra HD (default name) • lhd: HD (default name) • lsd: SD (default name) • lld: smooth (default name) • userdefine: custom video quality. When userdefine is specified, the templateName field cannot be empty.

Parameter	Mandatory	Type	Description
templateName	No	String	Custom template name. - The name of a custom template can contain a maximum of 32 characters. - To customize a template name, set quality to userdefine. - The name of each custom template must be unique. - A custom template cannot have the same quality settings as any another template. - If quality is not set to userdefine, do not set this parameter.
PVC	No	String	Indicates whether to use narrowband HD transcoding. Note: This field is no longer used. Use hdlb instead. The options are as follows: off: disabled on: enabled Default value: off
hdlb	No	String	Indicates whether to enable low-bitrate HD. The image quality is better than PVC. Note: When the hdlb field is used to enable low-bitrate HD, the PVC field does not take effect. The options are as follows: off: Low-bitrate HD is disabled. on: Low-bitrate HD is enabled. Default value: off
codec	No	String	Video encoding format. The options are as follows: H264: H.264 is used. H265: H.265 is used. The default value is H264.

Parameter	Mandatory	Type	Description
width	No	Integer	Long side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the long side. Unit: pixel. The options are as follows: • When codec is set to H264, the recommended value range of width is [32, 3840], and the value must be an integer multiple of 2. • When codec is set to H265, the recommended value range of width is [320, 3840], and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0

Parameter	Mandatory	Type	Description
height	No	Integer	Short side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the short side. Unit: pixel. The options are as follows: - When codec is set to H264, the recommended value range of height is [32, 2160] and the value must be an integer multiple of 2. - When codec is set to H265, the recommended value range of height is [240, 2160] and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0
bitrate	Yes	Integer	Bitrate of the transcoded video. Unit: kbit/s Value range: 40–30,000
video_frame_rate	No	Integer	Frame rate of the transcoded video. Unit: FPS Value range: 0–60. The value 0 indicates that the frame rate remains unchanged. Default value: 0
protocol	No	String	Protocol type supported by transcoded outputs. The default value is RTMP. Currently, only RTMP is supported. The options are as follows: RTMP

Parameter	Mandatory	Type	Description
iFrameInterval	No	Integer	Maximum I-frame interval. Unit: number of frames Value range: 0–500. Default value: 50 . Note: To set the I-frame interval using iFrameInterval , set gop to 0 .
gop	No	Integer	I-frame interval by time. Unit: second Value range: 0–10. Default value: 2 . Note: If gop is not 0 , the I-frame interval is set based on gop , and the iFrameInterval field does not take effect.
bitrate_adaptive	No	String	Adaptive bitrate parameter. The options are as follows: • off: Bitrate adaptation is disabled. The target bitrate is output as specified. • minimum: The target bitrate is the smaller value between the specified bitrate and the bitrate of the source file. That is, the bitrate does not increase. • adaptive: The target bitrate is adaptive to the bitrate of the source file. Default value: off

Parameter	Mandatory	Type	Description
i_frame_policy	No	String	Policy for outputting I-frames during encoding. The options are as follows: • auto: I-frames are output based on the configured GOP duration. • strictSync: The output I-frames are the same as those of the source. If the source contains I-frames, the output I-frames are encoded. If the source does not contain I-frames, the output non-I-frames are encoded. After this parameter is set, the GOP duration is invalid. Default value: auto

Response Parameters

Status code: 204

Transcoding template modified successfully.

Status code: 400

Table 6-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies a transcoding template. Set the application name to **live**, transcoding quality to SD, transcoding format to H.264, width to 1920 pixels, and height to 1080 pixels.

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

```
{
  "domain" : "play.example.com",
  "app_name" : "live",
  "quality_info" : [ {
    "quality" : "lsd",
    "hdlb" : "off",
    "codec" : "H264",
```

```
{
  "width" : 1920,
  "height" : 1080,
  "bitrate" : 4500,
  "video_frame_rate" : 20,
  "gop" : 4
}, {
  "quality" : "userdefine",
  "templateName" : "yourTemplateName",
  "hdlb" : "off",
  "codec" : "H264",
  "width" : 1920,
  "height" : 1080,
  "bitrate" : 4500,
  "video_frame_rate" : 20,
  "gop" : 4
}]
}
```

Example Responses

Status code: 400

Failed to modify the transcoding template.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

6.4 Querying Transcoding Templates

Function

This API is used to query transcoding templates.

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
live:transcode:listTranscodingsTemplate	Read	-	-	-	-

URI

GET /v1/{project_id}/template/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
domain	Yes	String	Ingest domain name.
app_name	No	String	Application name.
page	No	Integer	Page number,default value: 0
size	No	Integer	Number of records on each page. The value ranges from 1 to 100 The default value is 10 .

Request Parameters

Table 6-17 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200**Table 6-18** Response body parameters

Parameter	Type	Description
total	Integer	Number of apps in the query result.
domain	String	Ingest domain name.
templates	Array of AppQualityInfo objects	Transcoding Template

Table 6-19 AppQualityInfo

Parameter	Type	Description
app_name	String	Application name.

Parameter	Type	Description
quality_info	Array of QualityInfo objects	Video quality information.

Table 6-20 QualityInfo

Parameter	Type	Description
quality	String	The options are as follows: • lud: ultra HD (default name) • lhd: HD (default name) • lsd: SD (default name) • lld: smooth (default name) • userdefine: custom video quality. When userdefine is specified, the templateName field cannot be empty.
templateName	String	Custom template name. • The name of a custom template can contain a maximum of 32 characters. • To customize a template name, set quality to userdefine. • The name of each custom template must be unique. • A custom template cannot have the same quality settings as any another template. • If quality is not set to userdefine, do not set this parameter.
PVC	String	Indicates whether to use narrowband HD transcoding. Note: This field is no longer used. Use hdlb instead. The options are as follows: • off: disabled • on: enabled Default value: off

Parameter	Type	Description
hdlb	String	Indicates whether to enable low-bitrate HD. The image quality is better than PVC. Note: When the hdlb field is used to enable low-bitrate HD, the PVC field does not take effect. The options are as follows: • off: Low-bitrate HD is disabled. • on: Low-bitrate HD is enabled. Default value: off
codec	String	Video encoding format. The options are as follows: • H264: H.264 is used. • H265: H.265 is used. The default value is H264.
width	Integer	Long side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the long side. Unit: pixel. The options are as follows: • When codec is set to H264, the recommended value range of width is [32, 3840], and the value must be an integer multiple of 2. • When codec is set to H265, the recommended value range of width is [320, 3840], and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0

Parameter	Type	Description
height	Integer	Short side of the video. For landscape orientation, the width is the long side. For portrait orientation, the height is the short side. Unit: pixel. The options are as follows: - When codec is set to H264, the recommended value range of height is [32, 2160] and the value must be an integer multiple of 2. - When codec is set to H265, the recommended value range of height is [240, 2160] and the value must be an integer multiple of 2. Note: If the input value of both sides is 0, the output video resolution is the same as the source video resolution. If the value of one side is set to 0, the output video resolution will be scaled proportionally according to the input value of the other side. Default value: 0
bitrate	Integer	Bitrate of the transcoded video. Unit: kbit/s Value range: 40–30,000
video_frame_rate	Integer	Frame rate of the transcoded video. Unit: FPS Value range: 0–60. The value 0 indicates that the frame rate remains unchanged. Default value: 0
protocol	String	Protocol type supported by transcoded outputs. The default value is RTMP. Currently, only RTMP is supported. The options are as follows: RTMP
iFrameInterval	Integer	Maximum I-frame interval. Unit: number of frames Value range: 0–500. Default value: 50. Note: To set the I-frame interval using iFrameInterval, set gop to 0.

Parameter	Type	Description
<code>gop</code>	Integer	I-frame interval by time. Unit: second Value range: 0–10. Default value: 2 . Note: If gop is not 0 , the I-frame interval is set based on gop , and the iFrameInterval field does not take effect.
<code>bitrate_adaptive</code>	String	Adaptive bitrate parameter. The options are as follows: • off: Bitrate adaptation is disabled. The target bitrate is output as specified. • minimum: The target bitrate is the smaller value between the specified bitrate and the bitrate of the source file. That is, the bitrate does not increase. • adaptive: The target bitrate is adaptive to the bitrate of the source file. Default value: off
<code>i_frame_policy</code>	String	Policy for outputting I-frames during encoding. The options are as follows: • auto: I-frames are output based on the configured GOP duration. • strictSync: The output I-frames are the same as those of the source. If the source contains I-frames, the output I-frames are encoded. If the source does not contain I-frames, the output non-I-frames are encoded. After this parameter is set, the GOP duration is invalid. Default value: auto

Status code: 400

Table 6-21 Response body parameters

Parameter	Type	Description
<code>error_code</code>	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

Example Requests

Queries transcoding templates.

```
GET https://{endpoint}/v1/{project_id}/template/transcodings?
domain=play.example.com&app_name=live&page=0&size=10
```

Example Responses

Status code: 200

Transcoding templates queried successfully.

```
{
  "domain" : "play.example.com",
  "total" : 1,
  "templates" : [ {
    "app_name" : "live",
    "quality_info" : [ {
      "quality" : "Lsd",
      "hdlb" : "off",
      "codec" : "H264",
      "width" : 1920,
      "height" : 1080,
      "bitrate" : 4500,
      "video_frame_rate" : 20,
      "gop" : 4
    }, {
      "quality" : "userdefine",
      "templateName" : "yourTemplateName",
      "hdlb" : "off",
      "codec" : "H264",
      "width" : 1920,
      "height" : 1080,
      "bitrate" : 4500,
      "video_frame_rate" : 20,
      "gop" : 4
    } ]
  } ]
}
```

Status code: 400

Failed to query the transcoding templates.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Transcoding templates queried successfully.

Status Code	Description
400	Failed to query the transcoding templates.

Error Codes

See [Error Codes](#).

7 Stream Management

7.1 Disabling a Push Stream

Function

This API is used to disable a push stream.

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
live:stream:createStreamForbidden	Write	-	-	-	-

URI

POST /v1/{project_id}/stream/blocks

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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 7-3 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name
app_name	Yes	String	Application name.
stream_name	Yes	String	Stream name (not *)

Parameter	Mandatory	Type	Description
resume_time	No	String	Specifies the time of resuming stream push. The value is a UTC time in the format of yyyy-mm-ddThh:mm:ssZ. If this parameter is not specified, the default value is 7 days. The maximum value is 90 days. resume_time cannot be earlier than the current time.

Response Parameters

Status code: 204

Stream disabled successfully.

Status code: 400

Table 7-4 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Creates an attribute for forbidding stream push.

```
POST https://{endpoint}/v1/{project_id}/stream/blocks
```

```
{
  "domain" : "publish.example.huawei.com",
  "app_name" : "live",
  "stream_name" : "huawei",
  "resume_time" : "2018-05-19T21:10:15Z"
}
```

Example Responses

Status code: 400

Failed to disable the stream.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Stream disabled successfully.
400	Failed to disable the stream.

Error Codes

See [Error Codes](#).

7.2 Querying Disabled Streams

Function

This API is used to query disabled streams.

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
live:stream:listStreamForbidden	Read	-	-	-	-

URI

GET /v1/{project_id}/stream/blocks

Table 7-5 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 .

Table 7-6 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name
app_name	No	String	Application name. If this parameter is not specified, the disabled streams under all applications for the domain are queried.
stream_name	No	String	Stream name.
page	No	Integer	Page number. The default value is 0 .
size	No	Integer	Number of records on each page. The value ranges from 1 to 100 The default value is 10 .

Request Parameters

Table 7-7 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.

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

Response Parameters

Status code: 200

Table 7-8 Response body parameters

Parameter	Type	Description
total	Integer	Total number of elements in the query result.
blocks	Array of StreamForbiddenList objects	Information about disabled streams

Table 7-9 StreamForbiddenList

Parameter	Type	Description
app_name	String	Application name.
stream_name	String	Stream name.
resume_time	String	Time to resume stream push. The format is yyyy-mm-ddThh:mm:ssZ (UTC time). The default value is 7 days. The maximum value is 90 days.

Status code: 400

Table 7-10 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries disabled streams.

```
GET https://{endpoint}/v1/{project_id}/stream/blocks?domain=publish.example.huawei.com&app_name=live
```

Example Responses

Status code: 200

Disabled streams queried successfully.

```
{
  "total" : 2,
  "blocks" : [ {
    "app_name" : "live",
    "stream_name" : "test_001",
    "resume_time" : "2018-05-19T21:10:15Z"
  }, {
    "app_name" : "live",
    "stream_name" : "test_002",
    "resume_time" : "2018-06-12T20:10:10Z"
  } ]
}
```

Status code: 400

Failed to query disabled streams.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Disabled streams queried successfully.
400	Failed to query disabled streams.

Error Codes

See [Error Codes](#).

7.3 Resuming a Push Stream

Function

This API is used to resume a push stream.

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
live:stream:deleteStreamForbidden	Write	-	-	-	-

URI

DELETE /v1/{project_id}/stream/blocks

Table 7-11 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 7-12 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app_name	Yes	String	Application name.
stream_name	Yes	String	Stream name (not *)

Request Parameters

Table 7-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

Stream resumed successfully.

Status code: 400

Table 7-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/stream/blocks?  
domain=publish.example.huawei.com&app_name=live&stream_name=test_001
```

Example Responses

Status code: 400

Failed to resume the stream.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Stream resumed successfully.
400	Failed to resume the stream.

Error Codes

See [Error Codes](#).

7.4 Modifying the Attribute of a Disabled Stream

Function

This API is used to modify the attribute of a disabled stream.

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
live:stream:updateStreamForbidden	Write	-	-	-	-

URI

PUT /v1/{project_id}/stream/blocks

Table 7-15 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 7-16 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 7-17 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name
app_name	Yes	String	Application name.
stream_name	Yes	String	Stream name (not *)

Parameter	Mandatory	Type	Description
resume_time	No	String	Specifies the time of resuming stream push. The value is a UTC time in the format of yyyy-mm-ddThh:mm:ssZ. If this parameter is not specified, the default value is 7 days. The maximum value is 90 days. resume_time cannot be earlier than the current time.

Response Parameters

Status code: 204

Attribute of the disabled stream modified successfully.

Status code: 400

Table 7-18 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies the attribute for forbidding stream push.

```
POST https://{endpoint}/v1/{project_id}/stream/blocks
```

```
{
  "domain" : "publish.example.huawei.com",
  "app_name" : "live",
  "stream_name" : "huawei",
  "resume_time" : "2018-05-19T21:10:15Z"
}
```

Example Responses

Status code: 400

Failed to modify the attribute of the disabled stream.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Attribute of the disabled stream modified successfully.
400	Failed to modify the attribute of the disabled stream.

Error Codes

See [Error Codes](#).

7.5 Pausing Stream Push

Function

API for pausing stream push

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
live:stream:createStreamForbiddenOnce	Write	-	-	-	-

URI

POST /v1/{project_id}/stream/block-once

Table 7-19 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 7-20 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 7-21 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app_name	Yes	String	Application name.
stream_name	Yes	String	Stream name.

Response Parameters

Status code: 204

Stream push paused.

Status code: 400

Table 7-22 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
POST https://{endpoint}/v1/{project_id}/stream/block-once
```

```
{
  "domain" : "publish.example.huawei.com",
  "app_name" : "live",
  "stream_name" : "huawei"
}
```

Example Responses

Status code: 400

Pause stream push failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Stream push paused.
400	Pause stream push failed.

Error Codes

See [Error Codes](#).

8 Notification Management

8.1 Adding and Modifying Stream Notification Configurations

Function

Adds and modifies stream notification configurations.

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
live:domain:updateStreamNotification	Write	-	-	-	-

URI

PUT /v1/{project_id}/notifications/publish

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 .

Table 8-2 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.

Request Parameters

Table 8-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 8-4 Request body parameters

Parameter	Mandatory	Type	Description
url	Yes	String	Callback URL.
auth_sign_key	No	String	Authentication key.
call_back_area	No	String	Area where the server for receiving callback notifications is located. The options are as follows: • mainland_china: Chinese mainland • outside_mainland_china: outside the Chinese mainland

Response Parameters

Status code: 200

Stream notification configuration modified.

Status code: 201

Stream notification configuration added.

Status code: 400

Table 8-5 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/notifications/publish?domain=push.example.com
{
  "url" : "https://endpoint.com/v1/test"
}
```

Example Responses

Status code: 400

Modify the stream notification configuration failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Stream notification configuration modified.
201	Stream notification configuration added.
400	Modify the stream notification configuration failed.

Error Codes

See [Error Codes](#).

8.2 Querying Stream Notification Configurations

Function

Queries stream notification configurations.

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
live:domain:getStreamNotifications	Read	-	-	-	-

URI

GET /v1/{project_id}/notifications/publish

Table 8-6 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 .

Table 8-7 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.

Request Parameters

Table 8-8 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 8-9 Response body parameters

Parameter	Type	Description
url	String	Callback URL.
auth_sign_key	String	Authentication key.
call_back_area	String	Area where the server for receiving callback notifications is located. The options are as follows: • mainland_china: Chinese mainland • outside_mainland_china: outside the Chinese mainland

Status code: 400

Table 8-10 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v1/{project_id}/notifications/publish?domain=push.example.com
```

Example Responses

Status code: 200

Stream notification configurations queried.

```
{
  "url" : "https://endpoint.com/v1/test"
}
```

Status code: 400

Query stream notification configurations failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Stream notification configurations queried.
400	Query stream notification configurations failed.

Error Codes

See [Error Codes](#).

8.3 Deleting a Stream Notification Configuration

Function

Deletes a stream notification configuration.

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
live:domain:deleteStreamNotification	Write	-	-	-	-

URI

DELETE /v1/{project_id}/notifications/publish

Table 8-11 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 8-12 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.

Request Parameters

Table 8-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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: 204

Stream notification configuration deleted.

Status code: 400

Table 8-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/notifications/publish?domain=push.example.com
```

Example Responses

Status code: 400

Delete the stream notification configuration failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Stream notification configuration deleted.
400	Delete the stream notification configuration failed.

Error Codes

See [Error Codes](#).

9 Authentication Management

9.1 Configuring a Referrer Validation ACL

Function

You can configure a referer validation access control list (ACL), based on which Live will identify and filter access requests of users. Only qualified users can access the content.

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
live:domain:updateReferrerChain	Write	-	-	-	-

URI

PUT /v1/{project_id}/guard/referer-chain

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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 9-3 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name
guard_switch	Yes	String	Whether to enable referer validation. true : enable; false : disable.
referer_config_empty	No	String	Whether the referer header is included. true : included; false : not included. This parameter is mandatory when guard_switch is set to true .

Parameter	Mandatory	Type	Description
referer_white_list	No	String	Whether it is a referer whitelist. true : whitelist; false : blacklist. This parameter is mandatory when guard_switch is set to true .
referer_auth_list	No	Array of strings	Domain name list. Each domain name is a regular expression. A maximum of 1,000 domain names can be included and separated by semicolons (;). This parameter is mandatory when guard_switch is set to true .

Response Parameters

Status code: 200

Referer validation ACL configured.

Status code: 400

Table 9-4 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/guard/referer-chain
```

```
{
  "domain": "play.example.huawei.com",
  "guard_switch": "true",
  "referer_config_empty": "true",
  "referer_white_list": "false",
  "referer_auth_list": [ "^http://test.*com$", "abc.com" ]
}
```

Example Responses

Status code: 400

Configuring the referer validation ACL failed.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Referer validation ACL configured.
400	Configuring the referer validation ACL failed.

Error Codes

See [Error Codes](#).

9.2 Deleting a Referer Validation ACL

Function

Deletes a referer validation ACL.

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
live:domain:deleteRefererChain	Write	-	-	-	-

URI

DELETE /v1/{project_id}/guard/referer-chain

Table 9-5 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 .

Table 9-6 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name

Request Parameters

Table 9-7 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Referer validation ACL deleted.

Status code: 400

Table 9-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/guard/referer-chain?domain=play.example.huawei.com
```

Example Responses

Status code: 400

Deleting the referer validation ACL failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Referer validation ACL deleted.
400	Deleting the referer validation ACL failed.

Error Codes

See [Error Codes](#).

9.3 Querying Referer Validation ACLs

Function

Queries referer validation ACLs.

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
live:domain:getRefererChain	Read	-	-	-	-

URI

GET /v1/{project_id}/guard/referer-chain

Table 9-9 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 9-10 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

Request Parameters

Table 9-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 9-12 Response body parameters

Parameter	Type	Description
domain	String	Domain name
guard_switch	String	Whether to enable referer validation. true : enable; false : disable.
referer_config_empty	String	Whether the referer header is included. true : included; false : not included. This parameter is mandatory when guard_switch is set to true .
referer_white_list	String	Whether it is a referer whitelist. true : whitelist; false : blacklist. This parameter is mandatory when guard_switch is set to true .
referer_auth_list	Array of strings	Domain name list. Each domain name is a regular expression. A maximum of 1,000 domain names can be included and separated by semicolons (;). This parameter is mandatory when guard_switch is set to true .

Status code: 400

Table 9-13 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}/guard/referer-chain?domain=play.example.huawei.com
```

Example Responses

Status code: 200

Referer validation ACLs queried.

```
{
  "domain" : "play.example.huawei.com",
  "guard_switch" : "true",
  "referer_config_empty" : "true",
  "referer_white_list" : "false",
  "referer_auth_list" : [ "^http://test.*com$", "abc.com" ]
}
```

Status code: 400

Querying referer validation ACLs failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Referer validation ACLs queried.
400	Querying referer validation ACLs failed.

Error Codes

See [Error Codes](#).

9.4 Querying IP Address ACLs

Function

Queries the IP address blacklist or whitelist of an ingest or streaming domain name.

- Blacklist: Specified IP addresses or network segments are not allowed.
- Whitelist: Only specified IP addresses or network segments are allowed.

- Default: All IP addresses or network segments are allowed.

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
live:domain:getIPAuthList	Read	-	-	-	-

URI

GET /v1/{project_id}/guard/ip

Table 9-14 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 9-15 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest or streaming domain name.

Request Parameters

Table 9-16 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 9-17 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-18 Response body parameters

Parameter	Type	Description
domain	String	Ingest or streaming domain name.

Parameter	Type	Description
auth_type	String	Authentication mode. The options are as follows: • WHITE: IP address whitelist authentication. • BLACK: IP address blacklist authentication. • NONE: No authentication is performed.
ip_auth_list	String	IP address blacklist. Use semicolons (;) to separate IP addresses, for example, 192.168.0.0;192.168.0.8. A maximum of 1,000 IP addresses can be configured. IP network segments can be added. For example, 127.0.0.1/24 indicates that the first 24 bits of a subnet mask are valid. The remaining 8 bits (32 - 24) represents the host ID. The subnet can accomodate 254 hosts ($2^8 - 2$). Therefore, 127.0.0.1/24 indicates that the IP network segment ranges from 127.0.0.1 to 127.0.0.255.

Status code: 400

Table 9-19 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-20 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v1/{project_id}/guard/ip?domain=play.example.huawei.com
```

Example Responses

Status code: 200

IP address ACLs queried.

```
{
  "domain" : "play.example.huawei.com",
  "auth_type" : "WHITE",
  "ip_auth_list" : "192.168.0.0;192.168.0.8"
}
```

Status code: 400

Query IP address ACLs failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	IP address ACLs queried.
400	Query IP address ACLs failed.

Error Codes

See [Error Codes](#).

9.5 Modifying an IP Address ACL

Function

Modifies the IP address ACL of an ingest or streaming domain name. Currently, only IPv4 addresses are supported.

- Blacklist: Specified IP addresses or network segments are not allowed.
- Whitelist: Only specified IP addresses or network segments are allowed.
- Default: All IP addresses or network segments are allowed.

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
live:domain:updateIPAuthList	Write	-	-	-	-

URI

PUT /v1/{project_id}/guard/ip

Table 9-21 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 9-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.

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

Table 9-23 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest or streaming domain name.
auth_type	Yes	String	Authentication mode. The options are as follows: • WHITE: IP address whitelist authentication. • BLACK: IP address blacklist authentication. • NONE: No authentication is performed.
ip_auth_list	Yes	String	IP address blacklist. Use semicolons (;) to separate IP addresses, for example, 192.168.0.0;192.168.0.8. A maximum of 1,000 IP addresses can be configured. IP network segments can be added. For example, 127.0.0.1/24 indicates that the first 24 bits of a subnet mask are valid. The remaining 8 bits (32 – 24) represents the host ID. The subnet can accomodate 254 hosts ($2^8 - 2$). Therefore, 127.0.0.1/24 indicates that the IP network segment ranges from 127.0.0.1 to 127.0.0.255.

Response Parameters

Status code: 200

Table 9-24 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Status code: 400**Table 9-25** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-26 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/guard/ip
{
  "domain" : "play.example.huawei.com",
  "auth_type" : "WHITE",
  "ip_auth_list" : "192.168.0.0/16;192.168.0.8"
}
```

Example Responses

Status code: 400

Set the IP address blacklist failed.

```
{
  "error_code" : "LIVE.100011001",
```

```
"error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	IP address blacklist set.
400	Set the IP address blacklist failed.

Error Codes

See [Error Codes](#).

9.6 Generating a Signed URL

Function

Generates a signed URL.

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

POST /v1/{project_id}/auth/chain

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 .

Request Parameters

Table 9-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 9-29 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest or streaming domain name.
domain_type	Yes	String	Domain name type. • pull: streaming domain name • push: ingest domain name
stream	Yes	String	Stream name, which is the same as the <i>StreamName</i> in an ingest or streaming URL.
app	Yes	String	Application name, which is the same as the <i>AppName</i> in an ingest or streaming URL.
check_level	No	Integer	Signing method C is mandatory. Check level. The value of LiveID consists of <i>AppName</i> and <i>StreamName</i> , that is, <i><app_name>/<stream_name></i> . The options are as follows: • 3: The system checks only LiveID but not the validity of the signed URL. • 5: The system checks LiveID and the validity of Timestamp.

Parameter	Mandatory	Type	Description
start_time	No	String	Start time of the valid access time defined by the user, for example, 2006-01-02T15:04:05Z07:00. If this parameter is not specified or is left empty, the current time is used.

Response Parameters

Status code: 200

Table 9-30 Response body parameters

Parameter	Type	Description
keychain	Array of strings	Generated signed URLs.

Status code: 400

Table 9-31 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
POST /v1/{project_id}/auth/chain
{
  "domain" : "string",
  "domain_type" : "string",
  "stream" : "string",
  "app" : "string",
  "check_level" : 0,
  "start_time" : "string"
}
```

Example Responses

Status code: 200

Signed URL obtained.

```
{
  "keychain" : [ "http://pull.domain.com/live/stream.flv?secret=xxx&time=ttt", "rtmp://pull.domain.com/live/"
```

```
stream?secret=xxx&time=ttt" ]  
}
```

Status code: 400

Obtain the signed URL failed.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Parameter verification failed."  
}
```

Status Codes

Status Code	Description
200	Signed URL obtained.
400	Obtain the signed URL failed.

Error Codes

See [Error Codes](#).

9.7 Querying Supported Areas of a Streaming Domain Name

Function

Queries supported areas of a streaming domain name.

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}/domain/geo-blocking

Table 9-32 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 9-33 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 9-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 9-35 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-36 Response body parameters

Parameter	Type	Description
play_domain	String	Streaming domain name.
apps	Array of GeoBlockingConfigInfo objects	Applications.

Table 9-37 GeoBlockingConfigInfo

Parameter	Type	Description
app	String	Application name.
area_whitelist	Array of strings	List of supported areas. An empty list indicates no restriction. The values of all region codes, except that of China, contain two uppercase letters. For the code format, see ISO 3166-1alpha-2 (https://www.iso.org/obp/ui/#search/code/). Some options are as follows: • CN-IN: Chinese mainland • CN-HK: Hong Kong (China) • CN-MO: Macao (China) • CN-TW: Taiwan (China) • BR: Brazil

Status code: 400

Table 9-38 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-39 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v1/{project_id}/domain/geo-blocking?play_domain=play.example.huawei.com
```

Example Responses

Status code: 200

Supported areas queried.

```
{
  "play_domain": "play.example.huawei.com",
  "apps": [ {
    "app": "live",
    "area_whitelist": [ "CN-IN", "CN-HK", "CN-MO", "CN-TW", "BR" ]
  } ]
}
```

Status code: 400

Query supported areas failed.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Supported areas queried.
400	Query supported areas failed.

Error Codes

See [Error Codes](#).

9.8 Modifying Supported Areas of a Streaming Domain Name

Function

Modifies supported areas of a streaming domain name to allow access from the selected areas.

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}/domain/geo-blocking

Table 9-40 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 9-41 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 9-42 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 9-43 Request body parameters

Parameter	Mandatory	Type	Description
app	Yes	String	Application name.
area_whitelist	No	Array of strings	List of supported areas. An empty list indicates no restriction. The values of all region codes, except that of China, contain two uppercase letters. For the code format, see ISO 3166-1alpha-2 (https://www.iso.org/obp/ui/#search/code/). Some options are as follows: ● CN-IN: Chinese mainland ● CN-HK: Hong Kong (China) ● CN-MO: Macao (China) ● CN-TW: Taiwan (China) ● BR: Brazil

Response Parameters

Status code: 200

Table 9-44 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Status code: 400

Table 9-45 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that processes the current request.)

Table 9-46 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/domain/geo-blocking?play_domain=play.example.huawei.com
{
  "app" : "live",
  "area_whitelist" : [ "CN-IN", "CN-HK", "CN-MO", "CN-TW", "BR" ]
}
```

Example Responses

Status code: 400

Set geo-blocking failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Geo-blocking set.
400	Set geo-blocking failed.

Error Codes

See [Error Codes](#).

9.9 Querying the URL Validation Configuration of a Specified Domain Name

Function

API for querying the URL validation configuration of a specified domain name

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
live:domain:getCDNConfig	Read	-	-	-	-

URI

GET /v1/{project_id}/guard/key-chain

Table 9-47 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 9-48 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain names, including the ingest domain name and streaming domain name.

Request Parameters

Table 9-49 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.

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

Response Parameters

Status code: 200

Table 9-50 Response body parameters

Parameter	Type	Description
key	String	URL validation value, which consists of 32 characters, including uppercase letters, lowercase letters, and digits. The value cannot contain only digits or letters.
auth_type	String	Signing method. The options are as follows: • d_sha256: signing method D, which uses the HMAC-SHA256 algorithm. This method is recommended. • c_aes: signing method C, which uses the symmetric encryption algorithm • b_md5: signing method B, which uses the MD5 algorithm • a_md5: signing method A, which uses the MD5 algorithm NOTE Signing methods A, B, and C have security risks. Signing method D is more secure and recommended.

Parameter	Type	Description
timeout	Integer	Timeout interval of URL validation. Value range: [60, 2,592,000], that is, 1 minute to 30 days Unit: second Maximum difference between the request time carried in the authentication information and the time when Live receives the request. This parameter is used to check whether the Live ingest URL or streaming URL has expired.

Status code: 400**Table 9-51** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401**Table 9-52** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 9-53** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500

Table 9-54 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries the URL validation configuration of a specified domain name.

```
GET https://{endpoint}/v1/{project_id}/guard/key-chain?domain=play.example.huawei.com
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "key" : "*****",
  "auth_type" : "d_sha256",
  "timeout" : 3600
}
```

Status code: 400

Parameter verification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code" : "LIVE.100011003",
  "error_msg" : "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The resource to be accessed does not exist. For example, the domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Parameter verification failed.
401	The API is not authorized to access resources.
404	The resource to be accessed does not exist. For example, the domain name does not exist.
500	Internal service error

Error Codes

See [Error Codes](#).

9.10 Modifying the URL Validation Configuration of a Specified Domain Name

Function

API for updating the URL validation configuration of a specified domain name

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
live:domain:updateCDNConfig	Write	-	-	-	-

URI

PUT /v1/{project_id}/guard/key-chain

Table 9-55 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 9-56 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain names, including the ingest domain name and streaming domain name.

Request Parameters

Table 9-57 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 9-58 Request body parameters

Parameter	Mandatory	Type	Description
key	Yes	String	URL validation value, which consists of 32 characters, including uppercase letters, lowercase letters, and digits. The value cannot contain only digits or letters.
auth_type	Yes	String	Signing method. The options are as follows: • d_sha256: signing method D, which uses the HMAC-SHA256 algorithm. This method is recommended. • c_aes: signing method C, which uses the symmetric encryption algorithm • b_md5: signing method B, which uses the MD5 algorithm • a_md5: signing method A, which uses the MD5 algorithm NOTE Signing methods A, B, and C have security risks. Signing method D is more secure and recommended.
timeout	Yes	Integer	Timeout interval of URL validation. Value range: [60, 2,592,000], that is, 1 minute to 30 days Unit: second Maximum difference between the request time carried in the authentication information and the time when Live receives the request. This parameter is used to check whether the Live ingest URL or streaming URL has expired.

Response Parameters

Status code: 200

Request succeeded.

Status code: 400**Table 9-59** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401**Table 9-60** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 9-61** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500**Table 9-62** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Updates the URL validation configuration of a specified domain name.

```
PUT https://{endpoint}/v1/{project_id}/guard/key-chain?domain=play.example.huawei.com
```

```
{
  "key" : "IbBizklRGCyMEd18oPV9sxAuuwNizT81",
  "auth_type" : "d_sha256",
```

```
"timeout" : 3600
}
```

Example Responses

Status code: 400

Parameter verification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code" : "LIVE.100011003",
  "error_msg" : "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Parameter verification failed.
401	The API is not authorized to access resources.
404	The domain name does not exist.
500	Internal service error

Error Codes

See [Error Codes](#).

9.11 Deleting the URL Validation Configuration of a Specified Domain Name

Function

API for deleting the URL validation configuration of a specified domain name.

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
live:domain:deleteCDNConfig	Write	-	-	-	-

URI

DELETE /v1/{project_id}/guard/key-chain

Table 9-63 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 9-64 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain names, including the ingest domain name and streaming domain name.

Request Parameters

Table 9-65 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

Deleted.

Status code: 400

Table 9-66 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401**Table 9-67** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 9-68** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500**Table 9-69** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Deletes the URL validation configuration of a specified domain name.

```
DELETE https://{endpoint}/v1/{project_id}/guard/key-chain?domain=play.example.huawei.com
```

Example Responses

Status code: 400

Parameter verification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code" : "LIVE.100011003",
}
```

```
"error_msg" : "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The resource to be accessed does not exist. For example, the domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
204	Deleted.
400	Parameter verification failed.
401	The API is not authorized to access resources.
404	The resource to be accessed does not exist. For example, the domain name does not exist.
500	Internal service error

Error Codes

See [Error Codes](#).

10 HTTPS Certificate Management

10.1 Querying HTTPS Certificate Information

Function

This API is used to query HTTPS certificate information based on the project ID and domain name.

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
live:domain:getCertificates	Read	-	-	-	-

URI

GET /v2/{project_id}/certificates

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 .

Table 10-2 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	No	String	Streaming domain name.
offset	No	Integer	Offset where the query starts.
limit	No	Integer	Number of records displayed on each page. Value range: 1 to 100 .

Request Parameters

Table 10-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 10-4 Response body parameters

Parameter	Type	Description
total	Number	Number of query results.
certificates_info	Array of CertInfoResp objects	Certificate information list.

Table 10-5 CertInfoResp

Parameter	Type	Description
play_domain	String	Streaming domain name.
project_id	String	Tenant ID.
tenant_name	String	Tenant name.
start_time	String	Time when the certificate becomes effective. The value is a UTC time in the format of YYYY-MM-DDTHH:mm:ssZ.
expire_time	String	Time when the certificate expires. The value is a UTC time in the format of YYYY-MM-DDTHH:mm:ssZ.
cert_type	Integer	Certificate type. 1 : SM-series cryptographic certificates; 0 : standard international certificate (default)
gm_cert_type	Integer	SM-series cryptographic certificate type. 1 : signature certificate; 2 : encryption certificate
source	String	Certificate source. user : self-owned certificate; scm : Huawei Cloud certificate manager
cert_name	String	Name of the certificate from SCM. The value is empty for a self-owned certificate.
cert_id	String	ID of the certificate from SCM. The value is empty for a self-owned certificate.

Status code: 400

Table 10-6 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v2/70b76xxxxx34253880af501cdxxxxx/certificates?  
play_domain=play.example.huawei.com
```

Example Responses

Status code: 200

HTTPS certificate information queried.

```
{  
  "total" : 2,  
  "certificates_info" : [ {  
    "play_domain" : "play.example.huawei.com",  
    "project_id" : "70b76xxxxx34253880af501cdxxxxx",  
    "tenant_name" : "huaweiTest",  
    "start_time" : "2021-03-03T01:34:01Z",  
    "expire_time" : "2022-04-04T01:34:01Z"  
  }, {  
    "play_domain" : "play.example.hwcloud.com",  
    "project_id" : "70b76xxxxx34253880af505cdxxxxx",  
    "tenant_name" : "huaweiTest001",  
    "start_time" : "2021-02-03T01:34:01Z",  
    "expire_time" : "2022-05-04T01:34:01Z"  
  } ]  
}
```

Status code: 400

Invalid parameter.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Request Illegal",  
  "request_id" : "xxxx-xxxx-xxxx-xxxx"  
}
```

Status Codes

Status Code	Description
200	HTTPS certificate information queried.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

10.2 Modifying the HTTPS Certificate Configuration of a Specified Domain Name

Function

API for modifying the HTTPS certificate configuration of a specified domain name.

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
live:domain:updateCDNConfig	Write	-	-	-	-

URI

PUT /v1/{project_id}/guard/https-cert

Table 10-7 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 10-8 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

Request Parameters

Table 10-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 10-10 Request body parameters

Parameter	Mandatory	Type	Description
certificate_for mat	No	String	Certificate format. The default value is PEM. Currently, only PEM is supported.
certificate	No	String	Certificate
certificate_key	No	String	Private key
force_redirect	No	Boolean	Whether to enable redirection. The default value is false.
gm_certificate	No	GmCertificateInfo object	Chinese (SM) certificate settings. Configure one international certificate, one Chinese (SM) certificate, or one international certificate and one Chinese (SM) certificate.

Parameter	Mandatory	Type	Description
tls_certificate	No	TlsCertificateInfo object	Chinese (SM) certificate settings. Configure one international certificate, one Chinese (SM) certificate, or one international certificate and one Chinese (SM) certificate. If this field is specified, you can skip the settings of certificate and certificate_key .

Table 10-11 GmCertificateInfo

Parameter	Mandatory	Type	Description
source	No	String	Certificate source. Options are scm (Cloud Certificate Manager, CCM) and user (default, the user's own certificate).
cert_name	No	String	(Optional) SCM certificate name.
cert_id	No	String	SCM certificate ID. This parameter is mandatory when the certificate source is scm .
sign_certificate	No	String	Chinese (SM) signature certificate body
sign_certificate_key	No	String	Chinese (SM) signature private key
enc_certificate	No	String	Chinese (SM) encryption certificate body
enc_certificate_key	No	String	Chinese (SM) encryption private key

Table 10-12 TlsCertificateInfo

Parameter	Mandatory	Type	Description
source	No	String	Certificate source. Options are scm (Cloud Certificate Manager, CCM) and user (default, the user's own certificate).

Parameter	Mandatory	Type	Description
cert_name	No	String	SCM certificate name. This parameter is available when the certificate source is scm .
cert_id	No	String	SCM certificate ID. This parameter is mandatory when the certificate source is scm .
certificate	No	String	Certificate body. This parameter is mandatory when the certificate source is user .
certificate_key	No	String	Private key. This parameter is mandatory when the certificate source is user .

Response Parameters

Status code: 200

Updated.

Status code: 400

Table 10-13 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401

Table 10-14 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404

Table 10-15 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500**Table 10-16** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies the HTTPS certificate configuration of a specified domain name.

```
PUT https://{endpoint}/v1/{project_id}/guard/https-cert?domain=play.example.huawei.com
{
  "certificate_format": "PEM",
  "certificate": "your cert",
  "certificate_key": "your cert key",
  "force_redirect": true
}
```

Example Responses

Status code: 400

Parameter verification failed. For example, the input **domain** value is empty or the certificate verification failed.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code": "LIVE.100011003",
  "error_msg": "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The resource to be accessed does not exist. For example, the domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
200	Updated.
400	Parameter verification failed. For example, the input domain value is empty or the certificate verification failed.
401	The API is not authorized to access resources.
404	The resource to be accessed does not exist. For example, the domain name does not exist.
500	Internal service error

Error Codes

See [Error Codes](#).

10.3 Querying the HTTPS Certificate Configuration of a Specified Domain Name

Function

API for querying the HTTPS certificate configuration of a specified domain name.

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
live:domain:getCDNConfig	Read	-	-	-	-

URI

GET /v1/{project_id}/guard/https-cert

Table 10-17 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 10-18 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

Request Parameters

Table 10-19 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 10-20 Response body parameters

Parameter	Type	Description
certificate_format	String	Certificate format. The default value is PEM. Currently, only PEM is supported.
certificate	String	Certificate
certificate_key	String	Private key
force_redirect	Boolean	Whether to enable redirection. The default value is false.
gm_certificate	GmCertificateInfo object	Chinese (SM) certificate settings. Configure one international certificate, one Chinese (SM) certificate, or one international certificate and one Chinese (SM) certificate.
tls_certificate	TlsCertificateInfo object	Chinese (SM) certificate settings. Configure one international certificate, one Chinese (SM) certificate, or one international certificate and one Chinese (SM) certificate. If this field is specified, you can skip the settings of certificate and certificate_key .

Table 10-21 GmCertificateInfo

Parameter	Type	Description
source	String	Certificate source. Options are scm (Cloud Certificate Manager, CCM) and user (default, the user's own certificate).
cert_name	String	(Optional) SCM certificate name.
cert_id	String	SCM certificate ID. This parameter is mandatory when the certificate source is scm .
sign_certificate	String	Chinese (SM) signature certificate body
sign_certificate_key	String	Chinese (SM) signature private key
enc_certificate	String	Chinese (SM) encryption certificate body
enc_certificate_key	String	Chinese (SM) encryption private key

Table 10-22 TlsCertificateInfo

Parameter	Type	Description
source	String	Certificate source. Options are scm (Cloud Certificate Manager, CCM) and user (default, the user's own certificate).
cert_name	String	SCM certificate name. This parameter is available when the certificate source is scm .
cert_id	String	SCM certificate ID. This parameter is mandatory when the certificate source is scm .
certificate	String	Certificate body. This parameter is mandatory when the certificate source is user .
certificate_key	String	Private key. This parameter is mandatory when the certificate source is user .

Status code: 400

Table 10-23 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401**Table 10-24** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 10-25** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500**Table 10-26** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Queries the HTTPS certificate configuration of a specified domain name.

```
GET https://{endpoint}/v1/{project_id}/guard/https-cert?domain=play.example.huawei.com
```

Example Responses

Status code: 200

Query succeeded.

Note: If **certificate_key** is not returned, the value is empty.

```
{
  "certificate_format" : "PEM",
  "certificate" : "",
  "certificate_key" : "",
  "force_redirect" : false
}
```

Status code: 400

Parameter verification failed. For example, the input **domain** value is empty or the certificate verification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code" : "LIVE.100011003",
  "error_msg" : "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The resource to be accessed does not exist. For example, the domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
200	Query succeeded. Note: If certificate_key is not returned, the value is empty.
400	Parameter verification failed. For example, the input domain value is empty or the certificate verification failed.
401	The API is not authorized to access resources.
404	The resource to be accessed does not exist. For example, the domain name does not exist.

Status Code	Description
500	Internal service error

Error Codes

See [Error Codes](#).

10.4 Deleting the HTTPS Certificate Configuration of a Specified Domain Name

Function

API for deleting the HTTPS certificate configuration of a specified domain name.

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
live:domain:deleteCDNConfig	Write	-	-	-	-

URI

DELETE /v1/{project_id}/guard/https-cert

Table 10-27 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 10-28 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

Request Parameters

Table 10-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

Deleted.

Status code: 400

Table 10-30 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 401**Table 10-31** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 10-32** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 500**Table 10-33** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Deletes the HTTPS certificate configuration of a specified domain name.

```
DELETE https://{endpoint}/v1/{project_id}/guard/https-cert?domain=play.example.huawei.com
```

Example Responses

Status code: 400

Parameter verification failed. For example, the input **domain** value is empty or the certificate verification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 401

The API is not authorized to access resources.

```
{
  "error_code" : "LIVE.100011003",
  "error_msg" : "Unauthorized access to the interface, please contact the main account administrator to open the interface permissions"
}
```

Status code: 404

The resource to be accessed does not exist. For example, the domain name does not exist.

```
{
  "error_code" : "LIVE.103011019",
  "error_msg" : "The resource to access is not exists"
}
```

Status code: 500

Internal service error

```
{
  "error_code" : "LIVE.100011005",
  "error_msg" : "Server internal error, please try again later or contact customer service staff to help solve"
}
```

Status Codes

Status Code	Description
204	Deleted.
400	Parameter verification failed. For example, the input domain value is empty or the certificate verification failed.
401	The API is not authorized to access resources.
404	The resource to be accessed does not exist. For example, the domain name does not exist.
500	Internal service error

Error Codes

See [Error Codes](#).

11 OBS Bucket Management

11.1 Granting or Canceling Authorization of Accessing OBS Buckets

Function

API for granting or canceling authorization of accessing OBS buckets.

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}/obs/authority

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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 11-3 Request body parameters

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
operation	Yes	Integer	Operation • 1: Access is authorized. • 0: The authorization is canceled.

Response Parameters

Status code: 200

Authorization of accessing OBS buckets updated.

Status code: 400

Table 11-4 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

Modifies the authorization policy of the OBS bucket. The bucket name is **video-test02** and the operation is **Authorize**.

```
PUT https://{endpoint}/v1/${project_id}/obs/authority
{
  "bucket" : "video-test02",
  "operation" : 1
}
```

Example Responses

Status code: 400

Update the authorization of accessing OBS buckets failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Authorization of accessing OBS buckets updated.
400	Update the authorization of accessing OBS buckets failed.

Error Codes

See [Error Codes](#).

12 Livestreaming Watermark Management

12.1 Creating a Watermark Template

Function

Creates a watermark template. The watermark template takes effect only after a watermark rule is bound.

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

POST /v1/{project_id}/watermark/templates

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. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 12-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Watermark template name
type	No	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	No	String	Template comment
picture_url	No	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.

Parameter	Mandatory	Type	Description
width	No	Number	1. Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
height	No	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	No	WatermarkLocation object	Watermark position

Parameter	Mandatory	Type	Description
text	No	WordWaterMarkInfo object	Text watermark information
scene	No	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-4 WordWaterMarkInfo

Parameter	Mandatory	Type	Description
format	Yes	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	No	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0–9), uppercase letters (A–F), and lowercase letters (a–f). [Verification is mandatory. If the verification fails, information will be displayed in white.]
font_size	No	Integer	Font size
font	No	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	No	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]

Parameter	Mandatory	Type	Description
shadow_color	No	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0–9), uppercase letters (A–F), and lowercase letters (a–f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	Yes	WatermarkLocation object	location is mandatory.

Table 12-5 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).

Parameter	Mandatory	Type	Description
x_offset	No	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	No	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Response Parameters

Status code: 201

Table 12-6 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-7 Response body parameters

Parameter	Type	Description
name	String	Watermark template name
type	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	String	Template comment
picture_url	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.
width	Number	1. Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.

Parameter	Type	Description
height	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0 , the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	WatermarkLocation object	Watermark position
text	WordWaterMarkInfo object	Text watermark information
scene	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-8 WordWaterMarkInfo

Parameter	Type	Description
format	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in white.]

Parameter	Type	Description
font_size	Integer	Font size
font	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]
shadow_color	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	WatermarkLocation object	location is mandatory.

Table 12-9 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).

Parameter	Type	Description
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-10 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-11 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

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

```
{
  "name" : "MyWatermarkTemplate",
  "type" : 0,
  "description" : "my demo template",
  "picture_url" : "http://example.com/picture",
  "width" : 0.1,
  "height" : 0.1,
  "location" : {
    "location" : "TOPLEFT",
    "x_offset" : 20,
    "y_offset" : 10
  }
}
```

Example Responses

Status code: 201

Watermark template created.

```
{
  "name" : "string",
  "type" : 1,
  "description" : "string",
  "picture_url" : "string",
  "width" : 4096,
  "height" : 4096,
  "location" : {
    "location" : "string",
    "x_offset" : 4096,
    "y_offset" : 4096
  }
}
```

Status code: 400

Watermark template creation failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
201	Watermark template created.
400	Watermark template creation failed.

Error Codes

See [Error Codes](#).

12.2 Querying Watermark Templates

Function

Queries watermark templates that meet the specified criteria.

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}/watermark/templates

Table 12-12 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 12-13 Query Parameters

Parameter	Mandatory	Type	Description
name	No	String	Watermark template name
scene	No	String	Distinguishes between Media Live and Cloud Live. By default, cloud_live (Cloud Live) is queried.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. The value ranges from 1 to 100 and defaults to 10 .

Request Parameters

Table 12-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 12-15 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-16 Response body parameters

Parameter	Type	Description
total	Integer	Total number
template_infos	Array of WatermarkTemplate objects	Response data

Table 12-17 WatermarkTemplate

Parameter	Type	Description
name	String	Watermark template name
type	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	String	Template comment
picture_url	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.
width	Number	- Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. - Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.

Parameter	Type	Description
height	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0 , the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	WatermarkLocation object	Watermark position
text	WordWaterMarkInfo object	Text watermark information
scene	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-18 WordWaterMarkInfo

Parameter	Type	Description
format	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in white.]

Parameter	Type	Description
font_size	Integer	Font size
font	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]
shadow_color	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	WatermarkLocation object	location is mandatory.

Table 12-19 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).

Parameter	Type	Description
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-20 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-21 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://live.hwcloud.com/v1/{project_id}/watermark/templates
```

Example Responses

Status code: 200

Watermark templates queried.

```
{
  "total" : 1,
  "template_infos" : [ {
    "name" : "MyWatermarkTemplate",
    "type" : 0,
    "description" : "my demo template",
    "picture_url" : "http://example.com/picture",
    "width" : 0.1,
    "height" : 0.1,
    "location" : {
      "location" : "TOPLEFT",
      "x_offset" : 20,
      "y_offset" : 10
    }
  } ]
}
```

Status code: 400

Invalid parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Watermark templates queried.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

12.3 Modifying a Watermark Template

Function

Modifies a watermark template. The modification takes effect immediately.

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}/watermark/templates/{id}

Table 12-22 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 .
id	Yes	String	Template ID, which is returned after the template is created.

Request Parameters

Table 12-23 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 12-24 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Watermark template name
type	No	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	No	String	Template comment
picture_url	No	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.
width	No	Number	- Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. - Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.

Parameter	Mandatory	Type	Description
height	No	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0 , the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	No	WatermarkLocation object	Watermark position
text	No	WordWaterMarkInfo object	Text watermark information
scene	No	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-25 WordWaterMarkInfo

Parameter	Mandatory	Type	Description
format	Yes	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	No	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0–9), uppercase letters (A–F), and lowercase letters (a–f). [Verification is mandatory. If the verification fails, information will be displayed in white.]
font_size	No	Integer	Font size
font	No	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	No	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]
shadow_color	No	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0–9), uppercase letters (A–F), and lowercase letters (a–f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	Yes	WatermarkLocation object	location is mandatory.

Table 12-26 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	No	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	No	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Response Parameters

Status code: 200

Table 12-27 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-28 Response body parameters

Parameter	Type	Description
name	String	Watermark template name
type	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	String	Template comment
picture_url	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.

Parameter	Type	Description
width	Number	1. Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
height	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0, the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	WatermarkLocation object	Watermark position
text	WordWaterMarkInfo object	Text watermark information
scene	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-29 WordWaterMarkInfo

Parameter	Type	Description
format	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in white.]
font_size	Integer	Font size
font	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]
shadow_color	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	WatermarkLocation object	location is mandatory.

Table 12-30 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-31 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-32 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/watermark/templates/e89b76xxxxxx3425ui80af501cdxxxxxx
{
  "name" : "MyWatermarkTemplate",
  "type" : 0,
  "description" : "my demo template",
  "picture_url" : "http://example.com/picture",
  "width" : 0.1,
  "height" : 0.1,
  "location" : {
    "location" : "TOPLEFT",
    "x_offset" : 20,
    "y_offset" : 10
  }
}
```

Example Responses

Status code: 200

Watermark template modified.

```
{
  "name" : "string",
  "type" : 1,
  "description" : "string",
  "picture_url" : "string",
  "width" : 4096,
  "height" : 4096,
  "location" : {
    "location" : "string",
    "x_offset" : 4096,
    "y_offset" : 4096
  }
}
```

Status code: 400

Watermark template modification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Watermark template modified.
400	Watermark template modification failed.

Error Codes

See [Error Codes](#).

12.4 Deleting a Watermark Template

Function

API for Deleting 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, no identity policy-based permission required for calling this API.

URI

DELETE /v1/{project_id}/watermark/templates/{id}

Table 12-33 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 .

Parameter	Mandatory	Type	Description
id	Yes	String	Template ID

Request Parameters

Table 12-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

Table 12-35 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Status code: 400

Table 12-36 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-37 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 12-38** Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-39 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/watermark/templates/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 400

Watermark template deletion failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 404

Record not found.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Watermark template deleted.
400	Watermark template deletion failed.
404	Record not found.

Error Codes

See [Error Codes](#).

12.5 Querying Watermark Template Configurations

Function

API for Querying Watermark Template Details

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}/watermark/templates/{id}

Table 12-40 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 .
id	Yes	String	Template ID

Request Parameters

Table 12-41 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 12-42 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-43 Response body parameters

Parameter	Type	Description
name	String	Watermark template name
type	Integer	Watermark type. 0 : image; 1 : text; 2 : image and text
description	String	Template comment
picture_url	String	Image download path Verification rule: An image URL can contain up to 2,048 characters, should be parsed properly, and use the HTTP or HTTPS protocol. (In the OTT scenario, only HTTPS is supported.) Image format: The file name extension must be .png, .jpg, .PNG, or .JPG.
width	Number	1. Integer: width of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark width to the output video width. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0 , the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.

Parameter	Type	Description
height	Number	Watermark image height. Options: 1. Integer: height of a watermark image, in pixels. The value can be 0 or range from 8 to 4,096. 2. Decimal: ratio of the watermark height to the output video height. The value range is [0, 1). You are advised to set either the width or height, as the other side will automatically adapt to avoid distortion. If both the width and height are set to 0 , the original width and height of the watermark image are used. The percentage can contain a maximum of four decimal places. The width and height must be both in pixels or both in percentage.
location	WatermarkLocation object	Watermark position
text	WordWaterMarkInfo object	Text watermark information
scene	String	Service attribute. cloud_live : Cloud Live (default); media_live : Media Live. This parameter cannot be modified after the template is created.

Table 12-44 WordWaterMarkInfo

Parameter	Type	Description
format	String	Watermark text content, which contains 1 to 64 characters. This parameter is mandatory when type is set to 1 or 2 and is optional when type is set to 0 .
font_color	String	Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in white.]

Parameter	Type	Description
font_size	Integer	Font size
font	String	Font. The default value is empty. The options are harmonyRegular and douyu2.0 .
time_zone	String	Time zone. [The value ranges from UTC-1200 to UTC+1200. The first three characters are UTC, the fourth character is + or -, the fifth and sixth characters indicate the hour, and the seventh and eighth characters are fixed to 00.]
shadow_color	String	The default value is none. Parameter verification: The first character is #, and the number of other characters is 6 or 8. Characters can contain digits (0-9), uppercase letters (A-F), and lowercase letters (a-f). [Verification is mandatory. If the verification fails, information will be displayed in black.]
location	WatermarkLocation object	location is mandatory.

Table 12-45 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).

Parameter	Type	Description
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-46 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-47 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v1/{project_id}/watermark/templates/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 200

Watermark templates queried.

```
{
  "name" : "MyWatermarkTemplate",
  "type" : 0,
  "description" : "my demo template",
  "picture_url" : "http://example.com/picture",
  "width" : 0.1,
  "height" : 0.1,
  "location" : {
    "location" : "TOPLEFT",
    "x_offset" : 20,
    "y_offset" : 10
  }
}
```

Status code: 400

Watermark template query failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Watermark templates queried.
400	Watermark template query failed.

Error Codes

See [Error Codes](#).

12.6 Creating a Watermark Rule

Function

API for creating a watermark rule. You must create a watermark template first.

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

POST /v1/{project_id}/watermark/rules

Table 12-48 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 12-49 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 12-50 Request body parameters

Parameter	Mandatory	Type	Description
rule_name	No	String	Watermark rule name. If this parameter is left blank, the default name is used. The default name is in the format of <i>Domain name:Application name:Stream name</i> , for example, example.com:live:stream.
template_id	Yes	String	Watermark template ID, which contains only digits, letters, and hyphens (-). The ID is generated when a template is created.
domain	Yes	String	Domain name
app	No	String	App name. Note: This parameter is optional for Clod Live and mandatory for Media Live.
stream	No	String	Stream name. This parameter is optional for OTT.
location	No	WatermarkLocation object	Watermark position
channel_id	No	String	This parameter is used for OTT. Set this parameter to the channel ID.
transcode_template_name	No	String	This parameter is used for OTT. Set this parameter to the name of the transcoding template corresponding to the channel.

Table 12-51 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	No	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	No	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Response Parameters

Status code: 201

Table 12-52 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-53 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name. If this parameter is left blank, the default name is used. The default name is in the format of <i>Domain name.Application name.Stream name</i> , for example, example.com:live:stream.
template_id	String	Watermark template ID, which contains only digits, letters, and hyphens (-). The ID is generated when a template is created.
domain	String	Domain name
app	String	App name. Note: This parameter is optional for Clod Live and mandatory for Media Live.
stream	String	Stream name. This parameter is optional for OTT.
location	WatermarkLocation object	Watermark position
channel_id	String	This parameter is used for OTT. Set this parameter to the channel ID.
transcode_template_name	String	This parameter is used for OTT. Set this parameter to the name of the transcoding template corresponding to the channel.

Table 12-54 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-55 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-56 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

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

```
{
  "template_id" : "70b76xxxxxx34253880af501cdxxxxxx",
  "domain" : "push.example.com",
  "app" : "live",
  "stream" : "watermarkStream",
  "location" : {
    "location" : "TOPLEFT",
    "x_offset" : 20,
    "y_offset" : 10
  }
}
```

Example Responses

Status code: 201

Watermark rule created.

```
{
  "rule_name" : "string",
  "template_id" : "string",
  "domain" : "string",
  "app" : "string",
  "stream" : "string",
  "location" : {
    "location" : "string",
    "x_offset" : 4096,
    "y_offset" : 4096
  }
}
```

Status code: 400

Watermark rule creation failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
201	Watermark rule created.
400	Watermark rule creation failed.

Error Codes

See [Error Codes](#).

12.7 Querying Watermark Rules

Function

Queries watermark rules that meet the specified criteria.

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}/watermark/rules

Table 12-57 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 12-58 Query Parameters

Parameter	Mandatory	Type	Description
template_id	No	String	Watermark template ID
domain	No	String	Ingest domain name
app	No	String	App name for stream push
channel_id	No	String	OTT channel ID
stream	No	String	Enter a transcoding template ID for OTT, and a stream name for Cloud Live.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of records on each page. The value ranges from 1 to 100 and defaults to 10 .

Request Parameters

Table 12-59 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 12-60 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-61 Response body parameters

Parameter	Type	Description
total	Integer	Total number
rules_infos	Array of WatermarkRule objects	Response data

Table 12-62 WatermarkRule

Parameter	Type	Description
rule_name	String	Watermark rule name. If this parameter is left blank, the default name is used. The default name is in the format of <i>Domain name.Application name.Stream name</i> , for example, <i>example.com:live:stream</i> .
template_id	String	Watermark template ID, which contains only digits, letters, and hyphens (-). The ID is generated when a template is created.
domain	String	Domain name
app	String	App name. Note: This parameter is optional for Clod Live and mandatory for Media Live.
stream	String	Stream name. This parameter is optional for OTT.

Parameter	Type	Description
location	WatermarkLocation object	Watermark position
channel_id	String	This parameter is used for OTT. Set this parameter to the channel ID.
transcode_template_name	String	This parameter is used for OTT. Set this parameter to the name of the transcoding template corresponding to the channel.

Table 12-63 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Parameter	Type	Description
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-64 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-65 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://live.hwcloud.com/v1/{project_id}/watermark/rules
```

Example Responses

Status code: 200

Watermark rules queried.

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

```
"template_id" : "70b76xxxxxx34253880af501cdxxxxxx",  
"domain" : "push.example.com",  
"app" : "live",  
"stream" : "watermarkStream",  
"location" : {  
  "location" : "TOPLEFT",  
  "x_offset" : 20,  
  "y_offset" : 10  
}  
}]  
}
```

Status code: 400

Invalid parameter.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Request Illegal"  
}
```

Status Codes

Status Code	Description
200	Watermark rules queried.
400	Invalid parameter.

Error Codes

See [Error Codes](#).

12.8 Modifying a Watermark Rule

Function

Modifies a watermark rule. The modification takes effect immediately. Only the location can be modified.

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}/watermark/rules/{id}

Table 12-66 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 .
id	Yes	String	Rule ID, which is returned after the rule is created.

Request Parameters

Table 12-67 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Table 12-68 Request body parameters

Parameter	Mandatory	Type	Description
rule_name	No	String	Watermark rule name. If this parameter is left blank, the default name is used.

Parameter	Mandatory	Type	Description
location	Yes	WatermarkLocation object	Watermark position

Table 12-69 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	No	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Parameter	Mandatory	Type	Description
y_offset	No	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Response Parameters

Status code: 200

Table 12-70 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-71 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name. If this parameter is left blank, the default name is used. The default name is in the format of <i>Domain name.Application name.Stream name</i> , for example, example.com:live:stream.
template_id	String	Watermark template ID, which contains only digits, letters, and hyphens (-). The ID is generated when a template is created.

Parameter	Type	Description
domain	String	Domain name
app	String	App name. Note: This parameter is optional for Clod Live and mandatory for Media Live.
stream	String	Stream name. This parameter is optional for OTT.
location	WatermarkLocation object	Watermark position
channel_id	String	This parameter is used for OTT. Set this parameter to the channel ID.
transcode_template_name	String	This parameter is used for OTT. Set this parameter to the name of the transcoding template corresponding to the channel.

Table 12-72 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Parameter	Type	Description
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-73 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-74 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/watermark/rules/e89b76xxxxxx3425ui80af501cdxxxxxx
{
  "rule_name" : "string",
  "location" : {
    "location" : "TOPLEFT",
    "x_offset" : 20,
    "y_offset" : 10
  }
}
```

Example Responses

Status code: 200

Watermark template modified.

```
{
  "rule_name" : "string",
  "template_id" : "string",
  "domain" : "string",
  "app" : "string",
  "stream" : "string",
  "location" : {
    "location" : "string",
    "x_offset" : 4096,
    "y_offset" : 4096
  }
}
```

Status code: 400

Watermark rule modification failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Watermark template modified.
400	Watermark rule modification failed.

Error Codes

See [Error Codes](#).

12.9 Deleting a Watermark Rule

Function

API for Deleting a Watermark Rule

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

DELETE /v1/{project_id}/watermark/rules/{id}

Table 12-75 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 .
id	Yes	String	Rule ID

Request Parameters

Table 12-76 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 204

Table 12-77 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Status code: 400**Table 12-78** Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-79 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Status code: 404**Table 12-80** Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-81 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/watermark/rules/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 400
Watermark rule deletion failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status code: 404
Record not found.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
204	Watermark rule deleted.
400	Watermark rule deletion failed.
404	Record not found.

Error Codes

See [Error Codes](#).

12.10 Querying Watermark Rule Configurations

Function

API for Querying Watermark Template Rules

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}/watermark/rules/{id}

Table 12-82 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 .
id	Yes	String	Rule ID

Request Parameters

Table 12-83 Request header parameters

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

Parameter	Mandatory	Type	Description
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 12-84 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id-timestamp-hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-85 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name. If this parameter is left blank, the default name is used. The default name is in the format of <i>Domain name.Application name.Stream name</i> , for example, example.com:live:stream.
template_id	String	Watermark template ID, which contains only digits, letters, and hyphens (-). The ID is generated when a template is created.
domain	String	Domain name
app	String	App name. Note: This parameter is optional for Clod Live and mandatory for Media Live.
stream	String	Stream name. This parameter is optional for OTT.
location	WatermarkLocation object	Watermark position

Parameter	Type	Description
channel_id	String	This parameter is used for OTT. Set this parameter to the channel ID.
transcode_template_name	String	This parameter is used for OTT. Set this parameter to the name of the transcoding template corresponding to the channel.

Table 12-86 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. Options: • TOPLEFT: upper left • TOPRIGHT: upper right • BOTTOMLEFT: lower left • BOTTOMRIGHT: lower right Random : The image watermark may appear in any corner of the video (upper left, upper right, lower left, or lower right).
x_offset	Number	Horizontal offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the horizontal offset to the output video width. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Parameter	Type	Description
y_offset	Number	Vertical offset between the watermark and the output video. Options: (1) An integer indicates the offset pixel. The value ranges from 1 to 4,096, in pixels. (2) A decimal indicates the ratio of the vertical offset to the output video height. The value range is [0, 1). The percentage can contain a maximum of four decimal places.

Status code: 400

Table 12-87 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: <i>request_id</i> - <i>timestamp</i> - <i>hostname</i> . (<i>request_id</i> is the UUID generated on the server. <i>timestamp</i> is the current timestamp. <i>hostname</i> is the name of the server that handles the current request.)

Table 12-88 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

Example Requests

```
GET https://{endpoint}/v1/{project_id}/watermark/rules/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 200

Watermark rules queried.

```
{  
  "template_id" : "70b76xxxxxx34253880af501cdxxxxxx",  
  "domain" : "push.example.com",  
}
```

```
"app" : "live",  
"stream" : "watermarkStream",  
"location" : {  
  "location" : "TOPLEFT",  
  "x_offset" : 20,  
  "y_offset" : 10  
}  
}
```

Status code: 400

Watermark rule query failed.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Request Illegal"  
}
```

Status Codes

Status Code	Description
200	Watermark rules queried.
400	Watermark rule query failed.

Error Codes

See [Error Codes](#).

13 Statistics Analysis

13.1 Querying Peak Bandwidth

Function

Queries the peak bandwidth within a specific time span.

If no domain name is specified, the peak bandwidth of all streaming domain names of the tenant is queried.

When tenant-level bandwidth data is queried, the **app** and **stream** parameters do not take effect.

The maximum query time span is 31 days. You can query data over the past one year.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/bandwidth/peak

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 .

Table 13-2 Query Parameters

Parameter	Mandatory	Type	Description
play_domains	No	Array of strings	Streaming domain name list. Up to 100 domain names can be queried. Separate domain names with commas (,). If no domain name is specified, the peak bandwidth of all streaming domain names of the tenant is queried.
app	No	String	Application name.
stream	No	String	Stream name.
isp	No	Array of strings	Carrier list. Possible values: • CMCC: China Mobile • CTCC: China Telecom • CUCC: China Unicom • OTHER: other carriers If this parameter is not specified, information about all carriers is queried.
protocol	No	String	Request protocol.

Parameter	Mandatory	Type	Description
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is 31 days. You can query data over the past one year. If this parameter is left empty, data over the past seven days is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, the current time is used by default. The end time must be later than the start time.
service_type	No	String	Service type. The options are as follows: • Live: Cloud Stream Live • LLL: Low Latency Live (LLL) • ALL: all service types If this parameter is not specified, data of all service types is queried by default.

Request Parameters

Table 13-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.

Parameter	Mandatory	Type	Description
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-4 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-5 Response body parameters

Parameter	Type	Description
bandwidth_list	Array of PeakBandwidthData objects	Peak bandwidth values by domain name

Table 13-6 PeakBandwidthData

Parameter	Type	Description
value	Long	Peak bandwidth, in bit/s
domain	String	Streaming domain name.

Status code: 400

Table 13-7 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the peak bandwidth of streaming domain names.

```
GET /v2/{project_id}/stats/bandwidth/peak?play_domains=livepull-test.huaweicloud.com
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{
  "bandwidth_list": [ {
    "value": 50,
    "domain": "livepull-test.huaweicloud.com"
  } ]
}
```

Status code: 400

This code is returned if the request failed to be fulfilled.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Invalid request parameter: play_domains"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	This code is returned if the request failed to be fulfilled.

Error Codes

See [Error Codes](#).

13.2 Querying Total Traffic

Function

Queries the total traffic within a specific time span.

If no domain name is specified, the total traffic volume of all streaming domain names of the tenant is queried.

When tenant-level traffic data is queried, the **app** and **stream** parameters do not take effect.

The maximum query time span is 31 days. You can query data over the past one year.

Data query is delayed for about 10 minutes.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/traffic/summary

Table 13-9 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 13-10 Query Parameters

Parameter	Mandatory	Type	Description
play_domains	No	Array of strings	Streaming domain name list. Up to 100 domain names can be queried. Separate domain names with commas (,). If no domain name is specified, the total traffic volume of all streaming domain names of the tenant is queried.
app	No	String	Application name.
stream	No	String	Stream name.
isp	No	Array of strings	Carrier list. Possible values: • CMCC: China Mobile • CTCC: China Telecom • CUCC: China Unicom • OTHER: other carriers If this parameter is not specified, information about all carriers is queried.
protocol	No	String	Request protocol.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is 31 days. You can query data over the past one year. If this parameter is left empty, data over the past seven days is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, the current time is used by default. The end time must be later than the start time.

Parameter	Mandatory	Type	Description
service_type	No	String	Service type. The options are as follows: • Live: Cloud Stream Live • LLL: Low Latency Live (LLL) • ALL: all service types If this parameter is not specified, data of all service types is queried by default.

Request Parameters

Table 13-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-12 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-13 Response body parameters

Parameter	Type	Description
traffic_list	Array of TrafficSummaryData objects	Total traffic by domain name

Table 13-14 TrafficSummaryData

Parameter	Type	Description
value	Long	Traffic, in bytes
domain	String	Domain name.

Status code: 400**Table 13-15** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-16 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the traffic summary of streaming domain names.

```
GET /v2/{project_id}/stats/traffic/summary?play_domains=livepull-  
test.huaweicloud.com&start_time=2020-06-04T07:00:00Z&end_time=2020-06-05T07:00:00Z
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{
  "traffic_list" : [ {
    "value" : 2300,
    "domain" : "livepull-test.huaweicloud.com"
  } ]
}
```

Status code: 400

This code is returned if the request failed to be fulfilled.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Invalid request parameter: play_domains"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	This code is returned if the request failed to be fulfilled.

Error Codes

See [Error Codes](#).

13.3 Querying HTTP Status Codes for Pulling Live Streams

Function

Queries HTTP status codes for pulling live streams.

HTTP status codes of a domain name in 1 minute will be returned.

The maximum query time span is 24 hours. You can query data over the past seven days.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/httpcodes

Table 13-17 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 13-18 Query Parameters

Parameter	Mandatory	Type	Description
play_domains	Yes	Array of strings	Streaming domain name list. Up to 100 domain names can be queried. Separate domain names with commas (,).
code	No	Array of strings	Status code
isp	No	Array of strings	Carrier list. Possible values: • CMCC: China Mobile • CTCC: China Telecom • CUCC: China Unicom • OTHER: other carriers If this parameter is not specified, information about all carriers is queried.

Parameter	Mandatory	Type	Description
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, data of the last hour is queried by default. The maximum query time span is one day. You can query data over the past seven days.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, the current time is used by default. The end time must be later than the start time. The maximum query time span is one day. You can query data over the past seven days.

Request Parameters

Table 13-19 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
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-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-20 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-21 Response body parameters

Parameter	Type	Description
data_series	Array of HttpCodeSummary objects	Time-based status code statistics.

Table 13-22 HttpCodeSummary

Parameter	Type	Description
http_codes	Array of HttpCode objects	Status code information
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

Table 13-23 HttpCode

Parameter	Type	Description
code	Integer	Status code
count	Integer	Number of times a status code is displayed

Parameter	Type	Description
proportion	Double	Percentage of the status code at the corresponding time point. A maximum of four decimal places are allowed.

Status code: 400**Table 13-24** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-25 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries streaming status codes of a streaming domain name.

```
GET /v2/{project_id}/stats/httpcodes?play_domains=livepull-  
test.huaweicloud.com&start_time=2020-07-23T07:00:00Z&end_time=2020-07-23T08:00:00Z
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "data_series": [ {  
    "time": "2020-06-04T07:00:00Z",  
    "http_codes": [ {  
      "code": 200,  
      "count": 750,  
      "proportion": 0.5211  
    }, {  
      "code": 400,  
      "count": 650,  
      "proportion": 0.4789  
    } ]  
  }, {  
    "time": "2020-06-04T07:01:00Z",  
    "http_codes": [ {  
      "code": 200,  
      "count": 1000,  
      "proportion": 1  
    }, {  
      "code": 400,  
      "count": 0,  
      "proportion": 0  
    } ]  
  } ]  
}
```

```
"code" : 400,  
"count" : 0,  
"proportion" : 0  
}]  
}]  
}
```

Status code: 400

Incorrect parameter.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Invalid request parameter: play_domains"  
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.4 Querying the Duration of Transcoded Outputs

Function

Queries the transcoded output duration per hour.

The maximum query time span is 31 days. You can query data over the past one year.

Data about the transcoded output duration is delayed for one hour.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/transcode

Table 13-26 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 13-27 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	No	String	Ingest domain name.
stream	No	String	Stream name.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. The value will be rounded to the nearest hour. For example, if this parameter is set to 2020-08-18T07:20:40Z, the actual query start time will be 2020-08-18T07:00:00Z. If this parameter is left empty, data over the past 24 hours is queried by default.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. The value will be rounded to the nearest hour. For example, if this parameter is set to 2020-08-18T08:20:40Z, the actual query start time will be 2020-08-18T08:00:00Z. If this parameter is not specified, the current time is used by default. The end time must be later than the start time. NOTE If the expenditures of a pay-per-use resource are charged by hour or day, the resource usage for the final settlement period of one month is deducted on the first day of the next month and settled in the next month. Example: The expenditures of pay-per-use resources are charged by hour. The transcoding usage from 2021/11/30 23:00:00 to 2021/12/01 00:00:00 started to be reported to the billing system at 2021/12/01 00:00:00. The billing system deducted the fee at 2021/12/01 00:36:00. The usage duration was from 2021/11/30 23:00:00 to 2021/12/01 00:00:00, and the transaction time was 2021/12/01 00:00. Therefore, the corresponding expenditures were included in the bill for the billing cycle of December 2021.

Request Parameters

Table 13-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200**Table 13-29** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-30 Response body parameters

Parameter	Type	Description
transcode_data_list	Array of TranscodeData objects	Sampled data list.

Parameter	Type	Description
summary_list	Array of TranscodeSummary objects	Total duration of all transcoded outputs in a specified time range

Table 13-31 TranscodeData

Parameter	Type	Description
spec_list	Array of TranscodeSpec objects	Transcoding duration in each sampling period
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

Table 13-32 TranscodeSpec

Parameter	Type	Description
type	String	Output specifications. The format is <i>codec_resolution</i> (low-bitrate HD disabled) or <i>codecPVCresolution</i> (low-bitrate HD enabled). The codec format can be H.264 or H.265. The resolution can be 4K (3840 x 2160) and lower, 2K (2560 x 1440) and lower, FHD (1920 x 1080) and lower, HD (1280 x 720) and lower, or SD (640 x 480) and lower.
value	Double	Duration of transcoded outputs collected at each sampling time, in minutes. A maximum of two decimal places are allowed.

Table 13-33 TranscodeSummary

Parameter	Type	Description
type	String	Output specifications. The format is <i>codec_resolution</i> (low-bitrate HD disabled) or <i>codecPVCresolution</i> (low-bitrate HD enabled). The codec format can be H.264 or H.265. The resolution can be 4K (3840 x 2160) and lower, 2K (2560 x 1440) and lower, FHD (1920 x 1080) and lower, HD (1280 x 720) and lower, or SD (640 x 480) and lower.
value	Double	Output specifications. The format is <i>codec_resolution</i> (low bitrate HD disabled) or <i>codec_PVC_resolution</i> (low bitrate HD enabled). Codecs include H.264 and H.265. Resolution levels include: 4K (3840 x 2160) or lower, 2K (2560 x 1440) or lower, FHD (1920 x 1080) or lower, HD (1280 x 720) or lower, and SD (640 x 480) or lower.

Status code: 400**Table 13-34** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-35 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the transcoding usage of an ingest domain name.

```
GET /v2/{project_id}/stats/transcode?publish_domain=livepull-  
test.huaweicloud.com&start_time=2020-08-18T07:00:00Z&end_time=2020-08-18T08:00:00Z
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{
  "transcode_data_list": [ {
    "time": "2020-08-18T07:00:00Z",
    "spec_list": [ {
      "type": "H265_PVC_SD",
      "value": 256.23
    }, {
      "type": "H265_PVC_HD",
      "value": 128.41
    } ]
  }, {
    "time": "2020-08-18T08:00:00Z",
    "spec_list": [ {
      "type": "H265_PVC_SD",
      "value": 52.35
    }, {
      "type": "H265_PVC_HD",
      "value": 136.32
    } ]
  },
  "summary_list": [ {
    "type": "H265_PVC_SD",
    "value": 308.58
  }, {
    "type": "H265_PVC_HD",
    "value": 264.73
  } ]
}
```

Status code: 400

Incorrect parameter.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Invalid request parameter: publish_domain"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.5 Querying Upstream Bandwidth

Function

Queries the upstream bandwidth.

The maximum query time span is 31 days. You can query data from the past one year.

NOTE

When you specify a start time and end time, the start time must align with an exact time point based on the query granularity, and the end time must be set to one unit less than the exact time point (not inclusive of the boundary).

For example, with a 5-minute query granularity, the start time must align with an exact 5-minute mark, for example, 0, 5, 50, 55 minutes, and the end time must be one second before the next interval

for example, 4 minutes 59 seconds, 9 minutes 59 seconds, and 59 minutes 59 seconds. If the **start_time** and **end_time** parameters are set to **2020-06-04T07:00:00Z** and **2020-06-04T07:04:59Z**, respectively, the bandwidth within the 5-minute interval is queried. If the query does not comply with the preceding specifications, the returned data may be different from the expected data.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/up-bandwidth/detail

Table 13-36 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 13-37 Query Parameters

Parameter	Mandatory	Type	Description
publish_domains	Yes	Array of strings	Ingest domain name list. Up to 100 domain names can be queried. Separate domain names with commas (,). If multiple domain names are queried, the combined data of multiple domain names will be returned.
app	No	String	Application name.
stream	No	String	Stream name.
isp	No	Array of strings	Carrier list. Possible values: • CMCC: China Mobile • CTCC: China Telecom • CUCC: China Unicom • OTHER: other carriers If this parameter is not specified, information about all carriers is queried.
interval	No	Integer	Time granularity for querying data. Unit: second The value can be 300s (default value), 3,600s, or 86,400s. If this parameter is not set, the default value 300s is used.
type	No	String	Type of the bandwidth to be queried. The options are as follows: • RELAY: Forwarding If this parameter is not specified, stream push bandwidth is queried by default.

Parameter	Mandatory	Type	Description
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is 31 days. You can query data over the past one year. If this parameter is left empty, data over the past seven days is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left empty, the current time is used by default. The maximum query time span is 31 days. You can query data over the past one year. The end time must be later than the start time.

Request Parameters

Table 13-38 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
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-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-39 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-40 Response body parameters

Parameter	Type	Description
data_list	Array of V2BandwidthData objects	Sampled data list

Table 13-41 V2BandwidthData

Parameter	Type	Description
value	Long	Bandwidth, in bit/s
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

Status code: 400

Table 13-42 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-43 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the bandwidth of an ingest domain name.

```
GET /v2/{project_id}/stats/up-bandwidth/detail?publish_domains=livepull-  
test.huaweicloud.com&start_time=2020-06-04T07:00:00Z&end_time=2020-06-04T07:09:59Z
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "data_list": [{  
    "time": "2020-06-04T07:00:00Z",  
    "value": 0  
  }, {  
    "time": "2020-06-04T07:05:00Z",  
    "value": 325  
  }]  
}
```

Status code: 400

Incorrect parameter.

```
{  
  "error_code": "LIVE.100011001",  
  "error_msg": "Invalid request parameter: domain"  
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.6 Querying the Number of Stream Channels

Function

Queries the number of pushed streams by domain name and returns statistics every five minutes.

The maximum query time span is 31 days. You can query data over the past one year.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/stream-count

Table 13-44 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 13-45 Query Parameters

Parameter	Mandatory	Type	Description
publish_domains	Yes	Array of strings	Ingest domain name list. Up to 100 domain names can be queried. Separate domain names with commas (,). If multiple domain names are queried, the combined data of multiple domain names will be returned.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is 31 days. You can query data over the past one year. If this parameter is left empty, data over the past seven days is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left empty, the current time is used by default. The maximum query time span is 31 days. You can query data over the past one year.

Request Parameters

Table 13-46 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.

Parameter	Mandatory	Type	Description
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200

Table 13-47 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-48 Response body parameters

Parameter	Type	Description
data_list	Array of StreamCountData objects	Sampled data list.

Table 13-49 StreamCountData

Parameter	Type	Description
value	Integer	Number of channels collected at each sampling time
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

Status code: 400**Table 13-50** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-51 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the number of streams of an ingest domain name.

```
GET /v2/{project_id}/stats/stream-count?publish_domains=livepull-  
test.huaweicloud.com&start_time=2020-06-04T07:00:00Z&end_time=2020-06-05T07:00:00Z
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "data_list": [ {  
    "time": "2020-06-04T07:00:00Z",  
    "value": 0  
  }, {  
    "time": "2020-06-04T07:05:00Z",  
    "value": 325  
  } ]  
}
```

Status code: 400

Incorrect parameter.

```
{  
  "error_code": "LIVE.100011001",  
  "error_msg": "Invalid request parameter: domain"  
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.7 Querying the Historical Stream List

Function

Queries the historical stream list.

Ongoing streams cannot be queried.

The maximum query time span is one day.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/history/streams

Table 13-52 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 13-53 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app	No	String	Application name.
stream	No	String	Stream name.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. If this parameter is left empty, data over the past one day is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left empty, the current time is used by default. The maximum query time span is one day. The end time must be later than the start time.
offset	No	Integer	Page number. The default value is 0.
limit	No	Integer	Number of records on each page. Value range: 1 to 100. Default value: 10

Request Parameters

Table 13-54 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200**Table 13-55** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-56 Response body parameters

Parameter	Type	Description
history_stream_list	Array of HistoryStreamInfo objects	Historical stream list
total	Integer	Total number of records

Table 13-57 HistoryStreamInfo

Parameter	Type	Description
domain	String	Ingest domain name - If the value of type is 0, the value of this parameter is the streamer's ingest domain name. - If the value of type is 1, the value of this parameter is a third-party ingest domain name.
app	String	Application name.
stream	String	Stream name.
type	Integer	Stream push type. Possible values: 0: stream push by the streamer 1: stream push by a third party
video_codec	String	Video codec
audio_codec	String	Audio codec
client_ip	String	IP address of the streamer
start_time	String	Time when sampling starts. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.
end_time	String	Time when sampling ends. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

Status code: 400**Table 13-58** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-59 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries historical pushed streams of a domain name.

```
GET /v2/{project_id}/stats/history/streams?domain=livepull-test.huaweicloud.com&limit=10&offset=1
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{
  "history_stream_list" : [ {
    "domain" : "livepull-test.huaweicloud.com",
    "app" : "live",
    "stream" : "pull",
    "type" : 0,
    "video_codec" : "H264",
    "audio_codec" : "AAC",
    "client_ip" : "127.0.0.1",
    "start_time" : "2020-06-04T07:00:00Z",
    "end_time" : "2020-06-05T07:00:00Z"
  } ],
  "total" : 100
}
```

Status code: 400

Incorrect parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Invalid request parameter: domain"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.8 Querying the Playback Profile

Function

Queries the playback profile of a stream.

The maximum query time span is one day. You can query data over the past 31 days.

This API can be used to query only the number of online users of FLV and RTMP streams.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/stream-portraits

Table 13-60 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 13-61 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.
stream	No	String	Stream name.
time	Yes	String	Date of which the data you want to query. The format must comply with the ISO 8601 standard and is YYYYMMDD, for example, 20200904. You can query data over the last 31 days (excluding the current day).

Request Parameters

Table 13-62 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200**Table 13-63** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-64 Response body parameters

Parameter	Type	Description
stream_portraits	Array of StreamPortrait objects	Playback profile details.

Table 13-65 StreamPortrait

Parameter	Type	Description
time	String	Date of which the data you want to query. The format must comply with the ISO 8601 standard and is YYYYMMDD, for example, 20200904. Data of the playback profiles from 00:00 to 23:59 on this day will be collected.
flow	Long	Total traffic, in bytes.
play_duration	Long	Total playback duration, in seconds.
request_count	Long	Total number of requests.
user_count	Long	Total number of viewers calculated based on IP address.
peak_user_count	Long	Peak number of viewers, which is calculated based on session IDs for the FLV and RTMP protocols, or IP addresses for other protocols. The number of viewers is collected every minute, and the highest value in the statistical period is returned.
peak_bandwidth	Long	Peak bandwidth. The unit is bit/s. The bandwidth usage is collected every 5 minutes, and the highest value in the statistical period is returned.
push_duration	Long	Total live stream pushing duration, in seconds.

Status code: 400**Table 13-66** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-67 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the stream profile of a streaming domain name.

```
GET /v2/{project_id}/stats/stream-portraits?play_domain=livepull-  
test.huaweicloud.com&stream=stream-000&time=20200904
```

Example Responses

Status code: 200

Query succeeded.

```
{  
  "stream_portraits": [ {  
    "time" : 20200812,  
    "flow" : 10,  
    "play_duration" : 10,  
    "request_count" : 10,  
    "user_count" : 10,  
    "peak_user_count" : 10,  
    "peak_bandwidth" : 10,  
    "push_duration" : 10  
  } ]  
}
```

Status code: 400

Incorrect parameter.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Invalid request parameter: play_domain"  
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

13.9 Querying the Distribution of Live Streaming Metrics by Region

Function

Queries detailed livestreaming data by region.

If no domain name is specified, the detailed data of all streaming domain names of the tenant is queried.

When tenant-level data is queried, the **app** and **stream** parameters do not take effect.

The maximum query time span is one day. You can query data from the past 90 days.

When viewer data is queried, only the number of online users of FLV and RTMP streams can be queried.

Data of the current day can be queried. The data delay is less than five minutes.

If the data is used for reconciliation, query the data generated three hours ago.

NOTE

- Domain name information is synchronized every hour. You can query the data one hour after the domain name is created.
- When you specify a start time and end time, the start time must align with an exact time point based on the query granularity, and the end time must be set to one unit less than the exact time point (not inclusive of the boundary).

For example, with a 5-minute query granularity, the start time must align with an exact 5-minute mark, such as, 0, 5, 50, 55 minutes, and the end time must be one second before the next interval, such as, 4 minutes 59 seconds, 9 minutes 59 seconds, and 59 minutes 59 seconds. If the **start_time** and **end_time** parameters are set to **2020-06-04T07:00:00Z** and **2020-06-04T07:04:59Z**, respectively, the data within the 5-minute interval is queried. If the query does not comply with the preceding specifications, the returned data may be different from the expected data.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/area/detail

Table 13-68 Path Parameters

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

Table 13-69 Query Parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	Queries start time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past 90 days.
end_time	Yes	String	Queries end time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past 90 days.
play_domains	No	Array of strings	List of streaming domain names to be queried. A maximum of 100 domain names can be queried.
app	No	String	App to be queried.
stream	No	String	Stream name.

Parameter	Mandatory	Type	Description
interval	No	Integer	Time granularity for querying data. Unit: second The value can be 300s (default value), 3,600s, or 86,400s. If this parameter is not set, the default value 300s is used. Note: • If metric is set to player (number of viewers), the specified value of interval does not take effect, and its default value 60s will be used. • The query granularity must be smaller than the query span. For example, if the difference between end_time and start_time is 86,400s (1 day), the granularity must be shorter than 86,400s.
isp	No	Array of strings	Carrier list. Possible values: • CMCC: China Mobile • CTCC: China Telecom • CUCC: China Unicom • OTHER: other carriers If this parameter is not specified, information about all carriers is queried.

Parameter	Mandatory	Type	Description
area	Yes	Array of strings	Huawei Cloud billing region to be queried. Possible options: • CN: Chinese mainland • AP1: Asia-Pacific 1 • AP2: Asia-Pacific 2 • AP3: Asia Pacific 3 • MEAA: Middle East and Africa • SA: Latin America • EU: Europe • ALL: All regions The result of the Chinese mainland is the name of the province or municipality, for example, Guangdong and Shanghai. For the mapping between Huawei Cloud regions outside China and regions/countries, see Region/Country Code Mapping Table.
metric	Yes	String	Metric. Possible values: • bandwidth: bandwidth • traffic: traffic • player: number of viewers
protocol	No	String	Request protocol. Possible values: • flv • hls

Request Parameters

Table 13-70 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory when AK/SK-based authentication is used.

Response Parameters

Status code: 200**Table 13-71** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-72 Response body parameters

Parameter	Type	Description
data_list	Array of AreaDetail objects	Timestamp and metric value at the corresponding time.

Table 13-73 AreaDetail

Parameter	Type	Description
area	String	Name of a charging region, for example, CN.
summary	Array of TimeValue objects	Timestamp and metric value at the corresponding time.
detail	Array of AreaTimeValue objects	Timestamps of provinces, regions, or countries in each charging region and metric values at the corresponding time.

Table 13-74 AreaTimeValue

Parameter	Type	Description
name	String	Name of a province, region, or country in a Huawei Cloud region. The result of the Chinese mainland is the Chinese name of the province or municipality, for example, Guangdong and Shanghai. For the mapping between Huawei Cloud regions outside China and regions/countries, see Region/Country Code Mapping Table .
data	Array of TimeValue objects	Value of the specified metric at the time specified by the timestamp.

Table 13-75 TimeValue

Parameter	Type	Description
time	String	Sampling time (UTC), which complies with the ISO 8601 standard. The format is YYYY-MM-DDThh:mm:ssZ.
value	Long	Value of the specified metric at the time specified by the timestamp.

Status code: 400

Table 13-76 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 13-77 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries details about streaming domain name metrics in regional livestreaming.

```
GET /v2/{project_id}/stats/area/detail?  
start_time=2021-12-20T07:00:00Z&end_time=2021-12-20T07:09:59Z&play_domains=livepull-  
test.huaweicloud.com&area=CN&metric=traffic
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "data_list": [ {  
    "area": "AP2",  
    "summary": [ {  
      "time": "2021-12-20T07:00:00Z",  
      "value": 323  
    }, {  
      "time": "2021-12-20T09:05:00Z",  
      "value": 325  
    } ],  
    "detail": [ {  
      "name": "TH",  
      "data": [ {  
        "time": "2021-12-20T07:00:00Z",  
        "value": 223  
      }, {  
        "time": "2021-12-20T09:05:00Z",  
        "value": 123  
      } ]  
    }, {  
      "name": "PH",  
      "data": [ {  
        "time": "2021-12-20T07:00:00Z",  
        "value": 123  
      }, {  
        "time": "2021-12-20T09:05:00Z",  
        "value": 223  
      } ]  
    } ]  
  } ]  
}
```

Status code: 400

Incorrect parameter.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Invalid request parameter: play_domains"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	Incorrect parameter.

Error Codes

See [Error Codes](#).

14 Stream Analytics

14.1 Querying the Stream Push Frame Rate

Function

Queries the stream frame rate.

The maximum query time span is one day. You can query data over the past seven days.

The granularity of the returned frame rate data is one second.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/stream/framerate

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 .

Table 14-2 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app	Yes	String	Application name.
stream	Yes	String	Stream name.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). Format: YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, data over the past hour is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, the current time is used by default. The end time must be later than the start time.

Request Parameters

Table 14-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200**Table 14-4** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 14-5 Response body parameters

Parameter	Type	Description
framerate_info_list	Array of V2FramerateInfo objects	Usage details.

Table 14-6 V2FramerateInfo

Parameter	Type	Description
publish_domain	String	Ingest domain name.
app	String	Application name.
stream	String	Stream name.
start_time	String	Time when sampling starts. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.
end_time	String	Time when sampling ends. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.
data_list	Array of longs	List of frame rates, in fps.

Status code: 400**Table 14-7** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 14-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the frame rate of an ingest domain name.

```
GET /v2/{project_id}/stats/stream/framerate?app=live&stream=pull_stream&domain=livepush-test.huaweicloud.com
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "framerate_info_list" : [ {
```

```
"publish_domain" : "livepush-test.huaweicloud.com",  
"app" : "live",  
"stream" : "pull",  
"start_time" : "2020-06-04T07:00:00Z",  
"end_time" : "2020-06-05T07:00:00Z",  
"data_list" : [ 10, 20 ]  
} ]  
}
```

Status code: 400

This code is returned if the request failed to be fulfilled.

```
{  
  "error_code" : "LIVE.100011001",  
  "error_msg" : "Invalid request parameter: domain"  
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	This code is returned if the request failed to be fulfilled.

Error Codes

See [Error Codes](#).

14.2 Querying the Stream Push Bitrate

Function

Queries the stream bitrate.

The maximum query time span is one day. You can query data over the past seven days.

The granularity of the returned bitrate data is one second.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the HUAWEI CLOUD Chinese Mainland website.

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 /v2/{project_id}/stats/stream/bitrate

Table 14-9 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 14-10 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.
app	Yes	String	Application name.
stream	Yes	String	Stream name.
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). Format: YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, data over the past hour is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. If this parameter is left blank, the current time is used by default. The end time must be later than the start time.

Request Parameters

Table 14-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory when AK/SK-based authentication is used.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200**Table 14-12** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 14-13 Response body parameters

Parameter	Type	Description
bitrate_info_list	Array of V2BitrateInfo objects	Usage details.

Table 14-14 V2BitrateInfo

Parameter	Type	Description
publish_domain	String	Domain name.
app	String	Application name.
stream	String	Stream name.
start_time	String	Time when sampling starts. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.
end_time	String	Time when sampling ends. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.
data_list	Array of longs	List of bitrates, in kbit/s.

Status code: 400**Table 14-15** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request.

Table 14-16 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the bitrate of an ingest domain name.

```
GET /v2/{project_id}/stats/stream/bitrate?app=live&stream=pull_stream&domain=livepush-test.huaweicloud.com
```

Example Responses

Status code: 200

This code is returned if the request succeeds.

```
{  
  "bitrate_info_list" : [ {
```

```
"publish_domain" : "livepush-test.huaweicloud.com",
"app" : "app",
"stream" : "pull_stream",
"start_time" : "2020-06-04T07:00:00Z",
"end_time" : "2020-06-05T07:00:00Z",
"data_list" : [ 100, 200 ]
} ]
}
```

Status code: 400

This code is returned if the request failed to be fulfilled.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Invalid request parameter: domain"
}
```

Status Codes

Status Code	Description
200	This code is returned if the request succeeds.
400	This code is returned if the request failed to be fulfilled.

Error Codes

See [Error Codes](#).

14.3 Querying the Stream Push Monitoring Data

Function

Queries stream push monitoring data, including the frame rate, bitrate, and stream interruption.

The maximum query time span is one day. You can query data over the past seven days.

The granularity of the returned bitrate data is one second.

Constraints

Queries only the data of domain names deployed on the new Live service (excluding CN North-Beijing1). This constraint applies only to the Huawei Cloud Chinese Mainland website.

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 /v2/{project_id}/stats/stream-detail

Table 14-17 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 14-18 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name
app	Yes	String	App name
stream	Yes	String	Stream name
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, data over the past hour is queried by default.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, the current time will be used by default. The end time must be later than the start time.

Request Parameters

Table 14-19 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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 a token.
Authorization	No	String	Authentication information. This parameter is mandatory for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 14-20 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique identifier of the request

Table 14-21 Response body parameters

Parameter	Type	Description
publish_domain	String	Ingest domain name
app	String	App name
stream	String	Stream name
video_framerate	Array of StreamDetail objects	Displays the frame rate of a video stream, in FPS. If stream interruption occurs, stream information in multiple time segments is displayed. For example: <pre>"video_framerate": [{ "start_time": "2022-02-04T07:00:00Z", "end_time": "2022-02-04T07:00:02Z", "data_list": [21, 22] }, { "start_time": "2022-02-04T07:00:05Z", "end_time": "2022-02-04T07:00:07Z", "data_list": [13, 34, 21] }]</pre>

Parameter	Type	Description
video_bitrate	Array of StreamDetail objects	Displays the bitrate of a video stream, in kbit/s. If stream interruption occurs, stream information in multiple time segments is displayed. For example: <pre>"video_bitrate": [{ "start_time": "2022-02-04T07:00:00Z", "end_time": "2022-02-04T07:00:02Z", "data_list": [1326, 1268, 775] }, { "start_time": "2022-02-04T07:00:05Z", "end_time": "2022-02-04T07:00:07Z", "data_list": [1021, 2022] }]</pre>

Table 14-22 StreamDetail

Parameter	Type	Description
start_time	String	Sampling start time. The date format complies with the ISO 8601 standard and the UTC time is used. The format is YYYY-MM-DDThh:mm:ssZ.
end_time	String	Sampling end time. The date format complies with the ISO 8601 standard and the UTC time is used. The format is YYYY-MM-DDThh:mm:ssZ.
data_list	Array of longs	Stream monitoring data list

Status code: 400**Table 14-23** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique identifier of the request

Table 14-24 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries streaming data.

```
GET /v2/{project_id}/stats/stream-detail?app=live&stream=pull_stream&publish_domain=livepush-test.huaweicloud.com
```

Example Responses

Status code: 200

Information is returned when the processing is successful.

```
{
  "publish_domain": "livepull-test.huaweicloud.com",
  "app": "app",
  "stream": "pull_stream",
  "video_framerate": [ {
    "start_time": "2022-02-04T07:00:00Z",
    "end_time": "2022-02-04T07:00:02Z",
    "data_list": [ 21, 22 ]
  }, {
    "start_time": "2022-02-04T07:00:05Z",
    "end_time": "2022-02-04T07:00:07Z",
    "data_list": [ 13, 34, 21 ]
  } ],
  "video_bitrate": [ {
    "start_time": "2022-02-04T07:00:00Z",
    "end_time": "2022-02-04T07:00:02Z",
    "data_list": [ 1326, 1268, 775 ]
  }, {
    "start_time": "2022-02-04T07:00:05Z",
    "end_time": "2022-02-04T07:00:07Z",
    "data_list": [ 1021, 2022 ]
  } ]
}
```

Status code: 400

Information is returned when the processing fails.

```
{
  "error_code": "LIVE.100011001",
  "error_msg": "Invalid request parameter: publish_domain"
}
```

Status Codes

Status Code	Description
200	Information is returned when the processing is successful.

Status Code	Description
400	Information is returned when the processing fails.

Error Codes

See [Error Codes](#).

14.4 Queries CDN upstream streaming quality data

Function

Queries CDN upstream streaming quality data

The maximum query time span is one day. You can query data over the past seven days.

The returned CDN upstream streaming quality data is accurate to one minute.

Constraints

Only the data of domain names added to the new Live console in regions excluding CN North-Beijing1 can be queried. This restriction applies only to the Huawei Cloud Chinese Mainland website.

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 /v2/{project_id}/stats/up-stream/detail

Table 14-25 Path Parameters

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

Table 14-26 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name
app	Yes	String	App name
stream	Yes	String	Stream name
start_time	No	String	Start time. The format must comply with the ISO 8601 standard (UTC time). Format: YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, data over the past hour is queried by default.
end_time	No	String	End time. The format must comply with the ISO 8601 standard (UTC time). Format: YYYY-MM-DDThh:mm:ssZ. The maximum query time span is one day. You can query data over the past seven days. If this parameter is not specified, the current time will be used by default. The end time must be later than the start time.

Request Parameters

Table 14-27 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. It can be obtained by calling the IAM API that is 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 for AK/SK authentication.
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID, which is the same as that used in the URI. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200**Table 14-28** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request

Table 14-29 Response body parameters

Parameter	Type	Description
publish_domain	String	Ingest domain name
app	String	App name
stream	String	Stream name

Parameter	Type	Description
data	Array of UpStreamDetail objects	Streaming quality data

Table 14-30 UpStreamDetail

Parameter	Type	Description
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time) and is YYYY-MM-DDThh:mm:ssZ.
fps	Long	Frame rate Unit: FPS
rate	Long	Bitrate Unit: kbit/s
delay	Long	Latency Unit: ms
gop_duration	Long	Duration of the latest GOP Unit: ms
last_video_pts	Long	Video PTS Unit: ms
last_audio_pts	Long	Audio PTS Unit: ms
last_video_audio_pts_diff	Long	Audio/Video PTS difference Unit: ms

Status code: 400**Table 14-31** Response header parameters

Parameter	Type	Description
X-Request-Id	String	Unique ID of the request

Table 14-32 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries details about an ingest domain name.

```
GET /v2/{project_id}/stats/up-stream/detail?  
app=stage&stream=stream-7159441965564594945&publish_domain=livepush-test.huaweicloud.com
```

Example Responses

Status code: 200

The information is returned when the request succeeded.

```
{  
  "publish_domain": "livepush-test.huaweicloud.com",  
  "app": "stage",  
  "stream": "stream-7159441965564594945",  
  "data": [ {  
    "fps": 29,  
    "rate": 8191,  
    "delay": 225,  
    "gop_duration": 1999,  
    "last_video_pts": 1224054,  
    "last_audio_pts": 1224054,  
    "last_video_audio_pts_diff": 0,  
    "time": "2020-04-23T07:00:00Z"  
  }, {  
    "fps": 28,  
    "rate": 184,  
    "delay": 0,  
    "gop_duration": 0,  
    "last_video_pts": 10135133,  
    "last_audio_pts": 10135125,  
    "last_video_audio_pts_diff": 8,  
    "time": "2020-04-23T07:00:00Z"  
  } ]  
}
```

Status code: 400

The information is returned when the request failed.

```
{  
  "error_code": "LIVE.100011001",  
  "error_msg": "Invalid request parameter: publish_domain"  
}
```

Status Codes

Status Code	Description
200	The information is returned when the request succeeded.

Status Code	Description
400	The information is returned when the request failed.

Error Codes

See [Error Codes](#).

14.5 Query an Ongoing Stream

Function

This API is used to query an ongoing stream.

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}/realtime/streams

Table 14-33 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 14-34 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name.

Parameter	Mandatory	Type	Description
app	No	String	Application name.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.
limit	No	Integer	Number of records on each page. The value ranges from 1 to 100 and defaults to 10 .
stream	No	String	Stream name. If the stream parameter is carried, the app parameter cannot be left empty.

Request Parameters

Table 14-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. This parameter is mandatory when token authentication is used. 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.
Authorization	No	String	Authentication information. This parameter is mandatory for AK/SK authentication.
X-Sdk-Date	No	String	Time when a request is sent. This parameter is mandatory for AK/SK authentication.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 14-36 Response body parameters

Parameter	Type	Description
total_page	Long	Total number of pages.
total_num	Long	Total number of items.
offset	Long	Offset.
limit	Long	Number of items on each page.
request_id	String	Unique ID of a request.
streams	Array of OnlineInfo objects	Stream statistics.

Table 14-37 OnlineInfo

Parameter	Type	Description
publish_domain	String	Domain name.
app	String	Application name.
stream	String	Stream name.
video_codec	String	Video encoding format. • H264 • H265
audio_codec	String	Audio encoding format. Value: AAC .
video_frame_rate	Long	Video frame rate, in FPS.
audio_frame_rate	Long	Audio frame rate, in FPS.
video_bitrate	Long	Video bitrate, in kbit/s.
audio_bitrate	Long	Audio bitrate, in kbit/s.
resolution	String	Video resolution.
client_ip	String	IP address of the device that pushes streams.
start_time	String	Time when stream pushing starts. The value is in UTC format, for example, 2006-01-02T15:04:05Z.

Status code: 400

Table 14-38 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
GET https://{endpoint}/v1/{project_id}/realtime/streams?
publish_domain=push.example.com&app=live&offset=0&limit=10
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "total_page" : 1,
  "total_num" : 10,
  "offset" : 0,
  "limit" : 10,
  "request_id" : "56b9f4dc-b282-48e0-a1a9-c50ffb06b687",
  "streams" : [ {
    "publish_domain" : "push.example.com",
    "app" : "live",
    "stream" : "test",
    "video_codec" : "H264",
    "audio_codec" : "AAC",
    "video_frame_rate" : 15,
    "audio_frame_rate" : 43,
    "video_bitrate" : 588,
    "audio_bitrate" : 68,
    "resolution" : "640x360",
    "client_ip" : "192.168.0.100",
    "start_time" : "2006-01-02T15:04:05Z"
  } ]
}
```

Status code: 400

Query failed.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "Request Illegal"
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Query 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 Live resources. If your HUAWEI ID does not need individual IAM users, you can skip this section.

With IAM, you can control access to specific 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

Autho rization Model	Core Relation ship	Permissio ns	Authorization Method	Description
Role/ Policy	User-permissi on- authoriz ation scope	• System-define d roles • System-define d 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	- System-defined identity policies - Custom identity policies	- 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.

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.

Assume that an IAM user wants to call an API to create a livestreaming domain name. With policy-based authorization, the IAM user must be granted the permissions allowing for action **live:domain:createDomain**. With policy-based authorization, the IAM user must be granted the permissions allowing for action **live:domain:createDomain**.

16 Appendix

16.1 Status Codes

Table 16-1 lists the status codes that may be returned when you call Live 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

Status Code	Error Codes	Error Message	Description	Solution
400	LIVE.100011001	Invalid request parameter.	Invalid request parameter.	Mandatory parameters are missing, or the parameter value format is incorrect. For details about the error, see the error_detail field in the error description.

Status Code	Error Codes	Error Message	Description	Solution
400	LIVE.100011004	The protocol is not supported. The API only supports the HTTPS protocol.	The protocol is not supported. The API only supports the HTTPS protocol.	Use the HTTPS protocol.
400	LIVE.100011006	This API is not supported in this version or is in the maintenance state.	This API is not supported in this version or is in the maintenance state.	Try again later or contact customer service.
400	LIVE.100011008	The API is in the maintenance state.	The API is in the maintenance state.	Try again later or submit a service ticket to reach technical support.
400	LIVE.100011009	The requested user does not exist.	The requested user does not exist.	Check whether input information is correct.
400	LIVE.100011011	The method specified in the request is not supported.	The method specified in the request is not supported.	Check whether the HTTP method is correct.
400	LIVE.100011012	Unsupported media type.	Unsupported media type.	Submit a service ticket to reach technical support.
400	LIVE.100011013	You have not completed real-name authentication.	You have not completed real-name authentication.	Complete real-name authentication.
400	LIVE.100011022	LIVE.Record task exist.	The recording task already exists.	After the command for stopping recording is run, run the command for starting recording for the same stream at an interval of more than 10 seconds.

Status Code	Error Codes	Error Message	Description	Solution
400	LIVE.103011018	The resource already exists.	The resource already exists.	Check whether the requested resource exists.
400	LIVE.103011020	The maximum number of domain names has been reached.	The maximum number of domain names has been reached.	Delete unnecessary domain names and add domain names again. If you have added the maximum number of domain names, but you want to add more, submit a service ticket.
400	LIVE.103011021	Failed to access the database.	Failed to access the database.	Submit a service ticket to reach technical support.
400	LIVE.103011022	This operation is not allowed in the current state.	This operation is not allowed in the current state.	Check the state of the domain name. Only domain names in the Disabled state can be modified or deleted.
400	LIVE.103011024	The ICP number does not exist.	The ICP number does not exist.	Check whether the ICP number is correct.
400	LIVE.103011025	The approved ICP number cannot be modified.	The approved ICP number cannot be modified.	The ICP number cannot be modified after being approved. If you need to change the ICP number, submit a service ticket.
400	LIVE.103011026	The domain name is in the blacklist.	The domain name is in the blacklist.	Use a licensed domain name.
400	LIVE.103011027	The domain name is in the blacklist.	The domain name is in the blacklist.	Use a licensed domain name.

Status Code	Error Codes	Error Message	Description	Solution
400	LIVE.103011029	The domain name is in gray configuration.	This domain name has grayscale configuration, and the configuration failed to be delivered.	Submit a service ticket to reach technical support.
400	LIVE.103011030	This domain name has customized configuration.	This domain name has customized configuration, and the configuration failed to be delivered.	Submit a service ticket to reach technical support.
400	LIVE.103011033	The number of parallel tasks being executed the quota.	The number of parallel tasks being executed the quota.	Submit a service ticket to request an increase in the quota for the number of parallel tasks, or wait for the currently executing tasks to complete before trying again.
401	LIVE.100011002	Identity authentication failed.	Identity authentication failed.	This problem is generally caused by incorrect signature calculation. For details, see the signature method in the document.
401	LIVE.100011003	You do not have permission to access the API.	You do not have permission to access the API.	Contact the master account administrator to obtain permission to access the API.

Status Code	Error Codes	Error Message	Description	Solution
401	LIVE.100011014	Your account is not allowed to access the service, because it is frozen, deleted, or has insufficient balance.	Your account is not allowed to access the service, because it is frozen, deleted, or has insufficient balance.	Check whether your account is frozen or suspended due to arrears.
401	LIVE.100011015	Project ID verification failed.	Project ID verification failed.	Check the project ID and request header in the request.
403	LIVE.103011016	Invalid request content.	Invalid request content.	Change to a valid request parameter.
404	LIVE.103011019	The resource does not exist.	The resource does not exist.	Check whether the requested resource exists or whether your account information is correct.
500	LIVE.100011000	Internal communication error.	Internal communication error.	Submit a service ticket to reach technical support.
500	LIVE.100011005	Internal server error.	Internal server error.	Try again later or contact customer service.
500	LIVE.100011007	The number of concurrent API requests exceeds the upper limit.	The number of concurrent API requests exceeds the upper limit.	Submit a service ticket to reach technical support.
500	LIVE.103011017	Failed to synchronize data to CDN.	Failed to synchronize data to CDN.	Check whether the domain name has been registered and ICP number is valid. If its ICP number is still invalid, submit a service ticket to reach technical support.

Status Code	Error Codes	Error Message	Description	Solution
500	LIVE.103011023	Failed to synchronize the domain name to GSLB.	Failed to synchronize the domain name to GSLB.	Submit a service ticket to reach technical support.
500	LIVE.103011028	Failed to synchronize the domain name to DNS.	Failed to synchronize the domain name to DNS.	Submit a service ticket to reach 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:

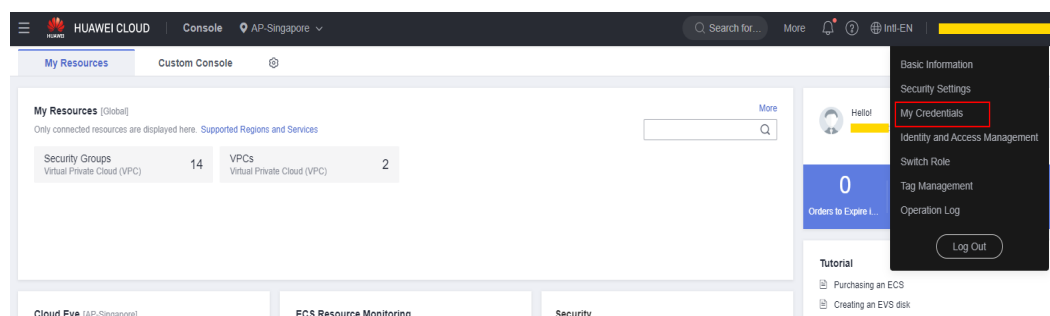
- [Obtaining a Project ID from the Console](#)
- [Obtaining a Project ID by Calling an API](#)

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

The screenshot shows the 'API Credentials' page in the Huawei Cloud IAM console. At the top, there's a 'Go to New Console' link. Below it is a blue banner with a link to learn more about Huawei Cloud accounts, IAM users, and projects. The main section is divided into two parts: 'API Credentials' and 'Projects'.

API Credentials:

- IAM User Name:** [Redacted] **username**
- Account Name:** [Redacted] **domainname**
- IAM User ID:** [Redacted]
- Account ID:** [Redacted] **domain id**

Projects:

Enter a project name. [Search Icon]

Project ID	Project Name	Region
[Redacted]	ap-southeast-1	CN-Hong Kong
[Redacted]	ap-southeast-2	AP-Bangkok
[Redacted]	ap-southeast-3	AP-Singapore
[Redacted]	cn-east-3	CN East-Shanghai1
[Redacted]	cn-north-1	CN North-Beijing1
[Redacted]	cn-north-4	CN North-Beijing4

----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 . 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"
  }
}
```

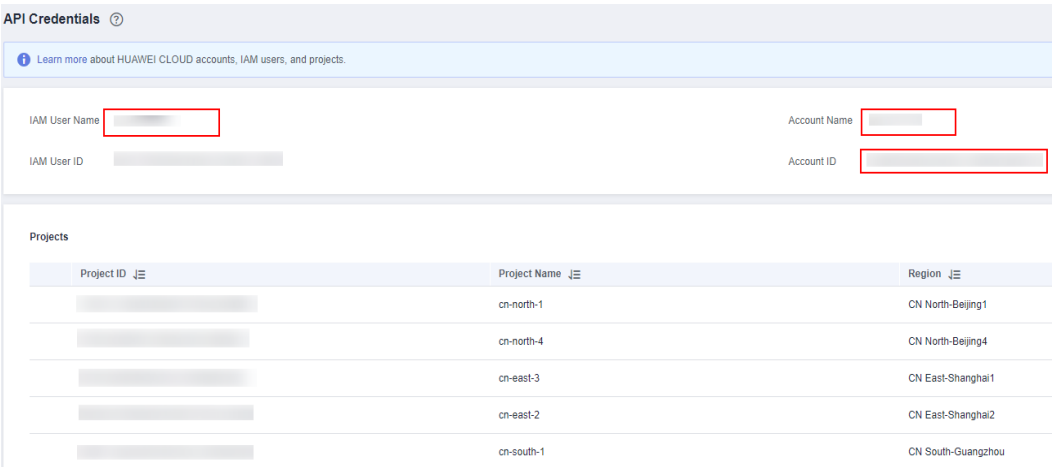
16.4 Obtaining an Account ID

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

16.5 Region Name Abbreviations

Table 16-2 Region name abbreviations

Region	Abbreviation
Others	OT
Beijing	BJ
Tianjin	TJ
Chongqing	CQ
Shanghai	SH
Guangdong	GD
Hainan	HI
Guangxi	GX
Yunnan	YN

Region	Abbreviation
Shanxi	SX
Hebei	HE
Inner Mongolia	NM
Ningxia	NX
Liaoning	LN
Jilin	JL
Heilongjiang	HL
Jiangsu	JS
Zhejiang	ZJ
Jiangxi	JX
Shandong	SD
Fujian	FJ
Anhui	AH
Sichuan	SC
Xizang	XZ
Shannxi	SN
Qinghai	QH
Xinjiang	XJ
Gansu	GS
Guizhou	GZ
Hubei	HB
Hunan	HN
Henan	HA
Hong Kong	HK
Macao	MO
Taiwan	TW

16.6 Country/Region Name Abbreviations

Table 16-3 Country/region name abbreviations

Country/Region	Abbreviation
Afghanistan	AF
Åland Islands	AX
Albania	AL
Algeria	DZ
American Samoa	AS
Andorra	AD
Angola	AO
Anguilla	AI
Antigua and Barbuda	AG
Argentina	AR
Armenia	AM
Aruba	AW
Australia	AU
Austria	AT
Azerbaijan	AZ
Bangladesh	BD
Bahrain	BH
Bahamas	BS
Barbados	BB
Belgium	BE
Belize	BZ
Benin	BJ
Bermuda	BM
Bhutan	BT
Bolivia	BO
Bosnia and Herzegovina	BA

Country/Region	Abbreviation
Botswana	BW
Bouvet Island	BV
Brazil	BR
Brunei	BN
Bulgaria	BG
Burkina Faso	BF
Burundi	BI
Cambodia	KH
Cameroon	CM
Canada	CA
Cape Verde	CV
Central African Republic	CF
Chad	TD
Chile	CL
Christmas Island	CX
Cocos (Keeling) Islands	CC
Colombia	CO
Comoros	KM
Congo - Kinshasa	CD
Congo - Brazzaville	CG
Cook Islands	CK
Costa Rica	CR
Côte d'Ivoire	CI
China	CN
Croatia	HR
Czech Republic	CZ
Cyprus	CY
Denmark	DK
Djibouti	DJ
Dominica	DM

Country/Region	Abbreviation
Ecuador	EC
Egypt	EG
Equatorial Guinea	GQ
Eritrea	ER
Estonia	EE
Ethiopian	ET
Faroe Islands	FO
Fiji	FJ
Finland	FI
France	FR
Metropolitan France	FX
French Guiana	GF
French Polynesia	PF
Gabon	GA
Gambia	GM
Georgia	GE
Germany	DE
Ghana	GH
Gibraltar	GI
Greece	GR
Grenada	GD
Guadeloupe	GP
Guam	GU
Guatemala	GT
Guernsey	GG
Guinea-Bissau	GW
Guinea	GN
Guyana	GY
Haiti	HT
Honduras	HN

Country/Region	Abbreviation
Hungary	HU
Iceland	IS
India	IN
Indonesia	ID
Iraq	IQ
Ireland	IE
Isle of Man	IM
Italy	IT
Jamaica	JM
Japan	JP
Jersey	JE
Jordan	JO
Kazakhstan	KZ
Kenya	KE
Kiribati	KI
South Korea	KR
Kuwait	KW
Kyrgyzstan	KG
Laos	LO
Latvia	LV
Lebanon	LB
Lesotho	LS
Liberia	LR
Libya	LY
Liechtenstein	LI
Lithuania	LT
Luxembourg	LU
North Macedonia	MK
Malawi	MW
Malaysia	MY

Country/Region	Abbreviation
Madagascar	MG
Maldives	MV
Mali	ML
Malta	MT
Marshall Islands	MH
Martinique	MQ
Mauritania	MR
Mauritius	MU
Mayotte	YT
Mexico	MX
Micronesia	MF
Moldova	MD
Monaco	MC
Mongolia	MN
Montenegro	ME
Montserrat	MS
Morocco	MA
Mozambique	MZ
Myanmar	MM
Namibia	NA
Nauru	NR
Nepal	NP
Netherlands	NL
New Caledonia	NC
New Zealand	NZ
Nicaragua	NI
Niger	NE
Nigeria	NG
Niue	NU
Norfolk Island	NF

Country/Region	Abbreviation
Norway	NO
Oman	OM
Pakistan	PK
Palau	PW
Panama	PA
Papua New Guinea	PG
Peru	PE
Philippines	PH
Pitcairn Islands	PN
Poland	PL
Portugal	PT
Puerto Rico	PR
Qatar	QA
Réunion	RE
Romania	RO
Rwanda	RW
Saint Helena	SH
Saint Kitts and Nevis	KN
Sant Lucia	LC
Saint Vincent and the Grenadines	VG
El Salvador	SV
Samoa	WS
San Marino	SM
São Tomé and Príncipe	ST
Saudi Arabia	SA
Senegal	SN
Seychelles	SC
Sierra Leone	SL
Singapore	SG
Serbia	RS

Country/Region	Abbreviation
Slovakia	SK
Slovenia	SI
Solomon Islands	SB
Somalia	SO
South Africa	ZA
Spain	ES
Sri Lanka	LK
Suriname	SR
Eswatini	SZ
Sweden	SE
Switzerland	CH
Tajikistan	TJ
Tanzania	TZ
Thailand	TH
Trinidad and Tobago	TT
Timor-Leste	TL
Togo	TG
Tokelau	TK
Tonga	TO
Tunisia	TN
Turkey	TR
Turkmenistan	TM
Tuvalu	TV
Uganda	UG
Ukraine	UA
United Arab Emirates	AE
United Kingdom	UK
United States	US
Uruguay	UY
Uzbekistan	UZ

Country/Region	Abbreviation
Vanuatu	VU
Vatican City	VA
Venezuela	VE
Vietnam	VN
Wallis and Futuna	WF
Yemen	YE
Zambia	ZM
Zimbabwe	ZW

16.7 Region/Country Codes

Billing Area	Region/Country	Code
Asia Pacific 1 (AP1)	Hong Kong (China)	HK
	Macao (China)	MO
	Taiwan (China)	TW
	Japan	JP
	South Korea	KR
Asia Pacific 2 (AP2) CAUTION Regions/ Countries not listed in this table belong to AP2.	Thailand	TH
	Indonesia	ID
	Philippines	PH
	Malaysia	MY
	Singapore	SG
	Cambodia	KH
	Laos	LA
	Vietnam	VN
Asia Pacific 3 (AP3)	India	IN
	Australia	AU
	Bangladesh	BD
Middle East and Africa (MEAA)	Saudi Arabia	SA
	Iraq	IQ

Billing Area	Region/Country	Code
	United Arab Emirates	AE
	Kuwait	KW
	Qatar	QA
	Oman	OM
	Bahrain	BH
	Azerbaijan	AZ
	Türkiye	TR
	South Africa	ZA
	Egypt	EG
	Ghana	GH
	Kenya	KE
	Nigeria	NG
SA Latin America	Argentina	AR
	Brazil	BR
	Chile	CL
	Colombia	CO
	Mexico	MX
	Peru	PE
EU Europe	Kazakhstan	KZ
	Mongolia	MN
	Uzbekistan	UZ
	Bulgaria	BG
	Belarus	BY
	Spain	ES
	France	FR
	United Kingdom	GB
	Germany	DE
	Greece	GR
	Ireland	IE
	Italy	IT

Billing Area	Region/Country	Code
	Netherlands	NL
	Poland	PL
	Romania	RO
	Russia	RU
	Sweden	SE

17

Change History

Table 17-1 Change history

Released On	Description
2025-12-30	This issue is the fourth official release. - Added the API for querying ongoing streams to the stream statistics API group. - Added the API for querying HTTPS certificate information to the HTTPS certificate management API group.
2025-09-12	This issue is the third official release. Added the livestreaming watermark management APIs.
2025-08-26	This issue is the second official release. Removed the API for querying ongoing streams from the stream management API group.
2024-07-30	This issue is the first official release.