Live

API Reference

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HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

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1 Before You Start

Huawei Cloud Live helps you smoothly deliver livestreaming 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 live video streams. For details about all supported operations, see **API Overview**.

If you plan to access Live through an API, ensure that you are familiar with Live concepts. For details, see **Service Overview**.

You can configure referer validation and access control lists (ACLs) on the Live console to determine who can and cannot access your content. Only users who meet the configured rules can play videos. For details, see **Access Control**.

Live supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Calling APIs**.

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**. You can also query the endpoints of services in **Regions and Endpoints**.

Table 1-1 Live endpoints

Region Name	Region	Endpoint
CN North-Beijing4	cn-north-4	live.cn-north-4.myhuaweicloud.com
AP-Singapore	ap-southeast-3	live.ap-southeast-3.myhuaweicloud.com
AP-Bangkok	ap-southeast-2	live.ap-southeast-2.myhuaweicloud.com

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Constraints

The Live service 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	3000 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	1000 times/minute
	Querying IP address information	5 times/second	5 times/second
	• Modifying the streaming domain name delay • Modifying origin pull settings	30 times/minute	100 times/minute

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API Category	API Name	Max. User Requests	Max. API Requests
	• Querying the streaming domain name delay • Querying origin pull settings	30 times/minute	300 times/minute
Transcoding template management	• Creating a transcoding template • Deleting a transcoding template • Modifying a transcoding template • Querying transcoding templates	100 times/ minute	1000 times/minute
Stream management	• Disabling a push stream • Modifying the attribute of a disabled stream	4000 times/ minute	12,000 times/ minute
	• Querying disabled streams • Resuming a push stream	3000 times/ minute	6000 times/minute
	Querying ongoing streams	1000 times/ minute	2000 times/minute

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API Category	API Name	Max. User Requests	Max. API Requests
Notification management	• Adding and modifying stream notification configurations • Querying stream notification configurations • Deleting stream notification configurations	300 times/ minute	3000 times/minute
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	3000 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

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API Category	API Name	Max. User Requests	Max. API Requests
	• 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
Snapshot management	• Creating a snapshot capturing template • Modifying a snapshot capturing template • Querying snapshot capturing templates • Deleting a snapshot capturing template	150 times/minute	300 times/minute
Log management	Obtaining livestreaming logs	300 times/minute	3000 times/minute

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API Category	API Name	Max. User Requests	Max. API Requests
Recording management	• Creating a recording template • Querying recording templates • Modifying a recording template • Deleting a recording template • Querying recording template configurations • Submitting a recording command	300 times/ minute	3000 times/minute
	Creating a video recording index	1200 times/ minute	3000 times/minute
Recording callback management	• Creating a recording callback • Querying recording callbacks • Modifying a recording callback • Querying recording callbacks • Deleting a recording callback	300 times/ minute	300 times/minute

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API Category	API Name	Max. User Requests	Max. API Requests
HTTPS certificate management	• 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
Statistical analysis	• Querying the duration of transcoded outputs • Querying the number of recording channels • Querying the number of snapshots • Querying playback profiles	60 times/minute	5000 times/minute

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API Category	API Name	Max. User Requests	Max. API Requests
	• Querying the peak bandwidth • Querying the total playback traffic • Querying HTTP status codes • Querying upstream bandwidth • Querying the number of stream push channels • Querying historical streams	20 times/minute	5000 times/minute
	Querying the distribution of livestreaming metrics by region	50 times/second	150 times/second
Statistical analysis	Querying stream data of a streaming domain name	20 times/second	50 times/second
Stream analytics	• Querying the stream frame rate • Querying the stream bitrate	20 times/minute	5000 times/minute
	Querying stream analytics	Once per second	5 times/second
	Querying CDN upstream streaming quality data	60 times/second	300 times/second

Concepts

- Account

  A domain is created upon successful registration. The domain has full access permissions for all of its cloud services and resources. It can be used to reset

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user passwords and grant user permissions. The account is a payment entity and should not be used 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 domain name, 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 communicate with each other. For low network latency and quick resource access, select the nearest region. The choice of regions may also be subject to legal compliance requirements.

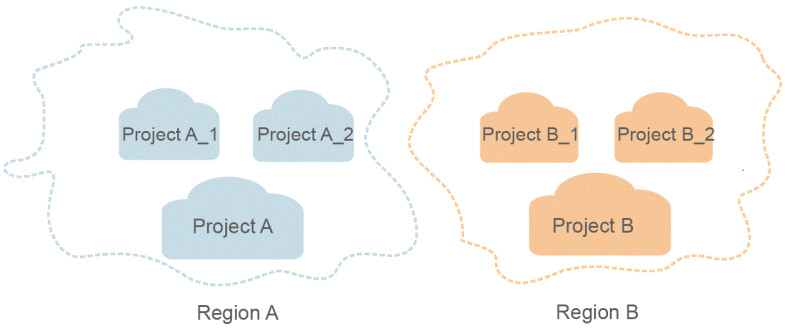
- AZ

  An AZ is one or more physical data centers within a region. It has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, compute, networking, storage, and other resources are logically divided into multiple clusters. AZs within a region are connected using high-speed optical fibers for high availability.

- Project

  Projects group and isolate resources (including compute, storage, and network 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



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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**
GET /v1/{project_id}/cdn/ip-info	**Querying IP Address Information**
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**

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API	Description
GET /v1/{project_id}/domain/hls	Querying HLS Configurations of Domain Names
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
GET /v1/{project_id}/realtime/streams	Querying Ongoing Streams

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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**

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Snapshot Management APIs

Table 2-6 Snapshot management APIs

API	Description
POST /v1/{project_id}/stream/snapshot	**Creating a Snapshot Capturing Template**
PUT /v1/{project_id}/stream/snapshot	**Modifying a Snapshot Capturing Template**
GET /v1/{project_id}/stream/snapshot	**Querying Snapshot Capturing Templates**
DELETE /v1/{project_id}/stream/snapshot	**Deleting a Snapshot Capturing Template**

Log Management APIs

Table 2-7 Log management APIs

API	Description
GET /v1/{project_id}/logs	**Obtaining Livestreaming Logs**

Recording APIs

Table 2-8 Recording APIs

API	Description
POST /v1/{project_id}/record/rules	**Creating a Recording Template**
GET /v1/{project_id}/record/rules	**Querying Recording Templates**
PUT /v1/{project_id}/record/rules/{id}	**Modifying a Recording Template**
DELETE /v1/{project_id}/record/rules/{id}	**Deleting a Recording Template**
GET /v1/{project_id}/record/rules/{id}	**Querying Recording Template Configurations**
POST /v1/{project_id}/record/control	**Submitting a Recording Command**
POST /v1/{project_id}/record/indexes	**Creating a Video Recording Index**

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Recording Callback Management APIs

Table 2-9 Recording callback management APIs

API	Description
POST /v1/{project_id}/record/callbacks	**Creating a Recording Callback**
GET /v1/{project_id}/record/callbacks	**Querying Recording Callbacks**
PUT /v1/{project_id}/record/callbacks/{id}	**Modifying a Recording Callback**
GET /v1/{project_id}/record/callbacks/{id}	**Querying Recording Callbacks**
DELETE /v1/{project_id}/record/callbacks/{id}	**Deleting a Recording Callback**

HTTPS Certificate Management APIs

Table 2-10 HTTPS certificate management APIs

API	Description
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 2-11 OBS bucket management APIs

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

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Statistics Analysis APIs

Table 2-12 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/record	**Querying the Number of Recording Channels**
GET /v2/{project_id}/stats/snapshot	**Querying the Number of Snapshots**
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**
GET /v2/{project_id}/stats/stream/play-info	**Querying Stream Data of a Streaming Domain Name**

Stream Analytics APIs

Table 2-13 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**

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API	Description
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**

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3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

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

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

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

Figure 3-1 Example URI

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

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

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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 *Hostname:Port number*. 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

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

(Optional) Request Body

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

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

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

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

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

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```
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.
- The AK/SK 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.

In AK/SK authentication, AK/SK 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 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.

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Token Authentication

NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

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": $ADMIN_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 **ABCDEFG....**, **X-Auth-Token: ABCDEFG....** can be added to a request as follows:

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

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.

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Response Header

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

Figure 3-2 shows the response header fields for the API used to **create an IAM user**. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

NOTE

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

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

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_[redacted]_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
    }
}
```

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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.

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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"
  }
```

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```
    }
  }
}
```

As shown in **Figure 4-1**, information in the red box indicates the user token.

Figure 4-1 Obtaining the user token

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
```

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```
    }
  ]
}
```

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 2: Creating a Recording Template

Scenario

If you want to record a livestream and store the recordings in OBS, you can call an API to configure a recording template.

This section describes how to configure a recording template by calling an API.

Prerequisites

- You have determined the region where the streaming domain name for which the recording template needs to be configured is located and obtained the endpoint of the region from **Regions and Endpoints**.
- You have obtained the project ID of the region where the streaming domain name is located. For details, see **Obtaining a Project ID**.

Overall Process

- **Obtain the Streaming Domain Name**
- **Configure a Recording Template**

Procedure

Step 1 Log in to the Live console and obtain the target streaming domain 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",
```

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```
        "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

Step 3 Call the API for **creating a recording template** to configure recording parameters.

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

```
{
  "publish_domain" : "publish.example.com",
  "app" : "live",
  "stream" : "*",
  "record_type" : "CONTINUOUS_RECORD",
  "default_record_config" : {
    "record_format" : [ "HLS", "FLV" ],
    "hls_config" : {
      "record_cycle" : 3600,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_type}/{record_format}/
{stream}_{file_start_time}/{file_start_time}",
      "record_ts_prefix" : "{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
      "record_slice_duration" : 10,
      "record_max_duration_to_merge_file" : 0
    },
    "flv_config" : {
      "record_cycle" : 9000,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/
{file_start_time}",
```

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```
    "record_max_duration_to_merge_file" : 0
  },
  "obs_addr" : {
    "bucket" : "mybucket",
    "location" : "cn-north-4",
    "object" : "record/"
  }
 }
}
```

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

Step 4 Start pushing a stream. The stream will be recorded and the recording will be saved in OBS. For details about how to obtain the recording, see **Managing Recordings**.

----End

4.3 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 **Regions and Endpoints**.
- 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": {
```

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

As shown in **Figure 4-3**, information in the red box indicates the user token.

Figure 4-3 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 → fd8e4d01ae9caf9f58af20cbdb2c88e2
x-subject-token
→ MIIYdwYJKoZIhvcNAQcCoIIYaDCCGGQCAQExDTALBglghkgBZQMEAgEwghbFBgkqhkiG9w0BBwGggha2BIIWsnsidG9rZW4iOnsiZXhwaXJlc19hdCI6IjIwMTktMDUtMzBUMDg6MDI6MzguNTgxMDAwWiIsIm1ldGhvZHMiOlsicGFzc3dvcmQiXSwiY2F0YWxvZyI6W3siZW5kcG9pbnRzIjpbeyJyZWdpb24iOiJjbi1zb3V0aC0xIiwidXJsIjoiaHR0cHM6Ly9pbWFnZS5jbi1zb3V0aC0xLm15aHVhd2VpY2xvdWQuY29tL3YxL2ZmMDJkMjBiOTRmNDQ4ZjhiZjQ0NjQ0MjQ0MjQ0M

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

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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**.

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**.

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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.
service_area	No	String	Domain name acceleration area. • mainland_china: Chinese mainland • outside_mainland_china: Outside the Chinese mainland • global: Global acceleration

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Parameter	Mandatory	Type	Description
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.
create_time	DateTime	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

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Parameter	Type	Description
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.c.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"
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

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

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class CreateDomainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateDomainRequest request = new CreateDomainRequest();
        LiveDomainCreateReq body = new LiveDomainCreateReq();
        body.withRegion("cn-north-4");
        body.withDomainType(LiveDomainCreateReq.DomainTypeEnum.fromValue("pull"));
        body.withDomain("play.example.com");
        request.withBody(body);
        try {
            CreateDomainResponse response = client.createDomain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

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

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateDomainRequest()
        request.body = LiveDomainCreateReq(
            region="cn-north-4",
            domain_type="pull",
            domain="play.example.com"
        )
        response = client.create_domain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

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```
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateDomainRequest{}
    request.Body = &model.LiveDomainCreateReq{
        Region: "cn-north-4",
        DomainType: model.GetLiveDomainCreateReqDomainTypeEnum().PULL,
        Domain: "play.example.com",
    }
    response, err := client.CreateDomain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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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.
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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteDomainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
```

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```
            .withAk(ak)
            .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
            .withCredential(auth)
            .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteDomainRequest request = new DeleteDomainRequest();
        try {
            DeleteDomainResponse response = client.deleteDomain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainRequest()
        response = client.delete_domain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainRequest{}
    response, err := client.DeleteDomain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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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**.

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.

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Parameter	Mandatory	Type	Description
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. 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.
create_time	DateTime	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.

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Parameter	Type	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
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.c.cdnhwc3.com",
  "region" : "region1",
  "status" : "off",
  "create_time" : "2020-01-19T02:57:00Z"
}
```

Status code: 400

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Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

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

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateDomainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDomainRequest request = new UpdateDomainRequest();
        LiveDomainModifyReq body = new LiveDomainModifyReq();
        body.withStatus(LiveDomainModifyReq.StatusEnum.fromValue("off"));
        body.withDomain("play.example.com");
        request.withBody(body);
        try {
            UpdateDomainResponse response = client.updateDomain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```

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```
    }
}
```

Python

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

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDomainRequest()
        request.body = LiveDomainModifyReq(
            status="off",
            domain="play.example.com"
        )
        response = client.update_domain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

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```
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDomainRequest{}
    statusLiveDomainModifyReq:= model.GetLiveDomainModifyReqStatusEnum().OFF
    request.Body = &model.LiveDomainModifyReq{
        Status: &statusLiveDomainModifyReq,
        Domain: "play.example.com",
    }
    response, err := client.UpdateDomain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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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.

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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 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.
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.
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	DateTime	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.

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Parameter	Type	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
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.c.cdnhwc3.com",
```

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```
    "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.c.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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowDomainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowDomainRequest request = new ShowDomainRequest();
        try {
            ShowDomainResponse response = client.showDomain(request);
            System.out.println(response.toString());
```

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```
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowDomainRequest()
        response = client.show_domain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowDomainRequest{}
    response, err := client.ShowDomain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

URI

PUT /v1/{project_id}/domains_mapping

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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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

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

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class CreateDomainMappingSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateDomainMappingRequest request = new CreateDomainMappingRequest();
        DomainMapping body = new DomainMapping();
        body.withPushDomain("publish.example.com");
        body.withPullDomain("play.example.com");
        request.withBody(body);
        try {
            CreateDomainMappingResponse response = client.createDomainMapping(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

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

```
# coding: utf-8

import os
```

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```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateDomainMappingRequest()
        request.body = DomainMapping(
            push_domain="publish.example.com",
            pull_domain="play.example.com"
        )
        response = client.create_domain_mapping(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
```

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```
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateDomainMappingRequest{}
    request.Body = &model.DomainMapping{
        PushDomain: "publish.example.com",
        PullDomain: "play.example.com",
    }
    response, err := client.CreateDomainMapping(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

URI

DELETE /v1/{project_id}/domains_mapping

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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.
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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteDomainMappingSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
```

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```
        DeleteDomainMappingRequest request = new DeleteDomainMappingRequest();
        try {
            DeleteDomainMappingResponse response = client.deleteDomainMapping(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainMappingRequest()
        response = client.delete_domain_mapping(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

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```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainMappingRequest{}
    response, err := client.DeleteDomainMapping(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

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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

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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 Querying IP Address Information

Function

Queries the homing information of the IP address of a CDN PoP.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v1/{project_id}/cdn/ip-info

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**.

Table 5-35 Query Parameters

Parameter	Mandatory	Type	Description
ip	Yes	Array of strings	Specifies the list of IP addresses, which can contain up to 20 IP addresses.

Request Parameters

Table 5-36 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.

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Response Parameters

Status code: 200

Table 5-37 Response body parameters

Parameter	Type	Description
cdn_ips	Array of **CdnIp** objects	Specifies the homing information of IP addresses.

Table 5-38 CdnIp

Parameter	Type	Description
ip	String	Specifies the IP address to be queried.
belongs	Boolean	Indicates whether the CDN PoP is on [Huawei Cloud](tag: hws). • true: The CDN PoP is on [Huawei Cloud](tag: hws). • false: The CDN PoP is not on [Huawei Cloud](tag: hws).
region	String	Specifies the homing information of an IP address. **Unknown** indicates that the homing information is unknown.
isp	String	Specifies the carrier. If the homing information of the IP address is unknown, **null** is returned for this field.
platform	String	Platform name. If the platform name is unknown, null is returned for this field.

Status code: 400

Table 5-39 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

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Table 5-40 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

- Queries IP address home information. Format 1: IP addresses are concatenated by ampersands (&).

  ```
  GET https://{endpoint}/v1/{project_id}/cdn/ip-info?ip=192.168.1.1&ip=192.168.1.2
  ```

- Queries IP address home information. Format 2: IP addresses are separated by commas (,).

  ```
  GET https://{endpoint}/v1/{project_id}/cdn/ip-info?ip=192.168.1.1,192.168.1.2
  ```

Example Responses

Status code: 200

Operation successful.

```
{
  "cdn_ips" : [ {
    "ip" : "192.168.1.1",
    "region" : "Sichuan",
    "platform" : null,
    "isp" : "Dianxin",
    "belongs" : true
  }, {
    "ip" : "192.168.1.2",
    "region" : "Unknown",
    "platform" : null,
    "isp" : null,
    "belongs" : false
  } ]
}
```

Status code: 400

Invalid parameter.

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

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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class BatchShowIpBelongsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchShowIpBelongsRequest request = new BatchShowIpBelongsRequest();
        try {
            BatchShowIpBelongsResponse response = client.batchShowIpBelongs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchShowIpBelongsRequest()
        response = client.batch_show_ip_belongs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchShowIpBelongsRequest{}
    response, err := client.BatchShowIpBelongs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	Operation successful.
400	Invalid parameter.
500	Internal service error.

Error Codes

See **Error Codes**.

5.9 Modifying the Streaming Domain Name Delay

Function

Modifies the streaming domain name delay.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/domain/delay

Table 5-41 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**.

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Request Parameters

Table 5-42 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 5-43 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

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Table 5-44 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modifies the streaming domain name delay.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateDelayConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
```

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```
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDelayConfigRequest request = new UpdateDelayConfigRequest();
        ModifyDelayConfig body = new ModifyDelayConfig();
        body.withDelay(2000);
        body.withApp("live");
        body.withPlayDomain("pull.example.test.com");
        request.withBody(body);
        try {
            UpdateDelayConfigResponse response = client.updateDelayConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies the streaming domain name delay.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDelayConfigRequest()
        request.body = ModifyDelayConfig(
            delay=2000,
            app="live",
            play_domain="pull.example.test.com"
```

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```
        )
        response = client.update_delay_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifies the streaming domain name delay.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDelayConfigRequest{}
    appModifyDelayConfig:= "live"
    request.Body = &model.ModifyDelayConfig{
        Delay: int32(2000),
        App: &appModifyDelayConfig,
        PlayDomain: "pull.example.test.com",
    }
    response, err := client.UpdateDelayConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

5.10 Querying the Streaming Domain Name Delay

Function

Queries the streaming domain name delay.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain/delay

Table 5-45 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 5-46 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

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Request Parameters

Table 5-47 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 5-48 Response body parameters

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

Table 5-49 DelayConfig

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

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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 5-50 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListDelayConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDelayConfigRequest request = new ListDelayConfigRequest();
        try {
            ListDelayConfigResponse response = client.listDelayConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDelayConfigRequest()
        response = client.list_delay_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDelayConfigRequest{}
    response, err := client.ListDelayConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

5.11 Modifying the HLS Configuration of a Domain Name

Function

Modifies the HLS configuration of a domain name.

Calling Method

For details, see **Calling APIs**.

URI

PUT /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**.

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Request Parameters

Table 5-52 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 5-53 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 5-54 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

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

Response Parameters

Status code: 200

Table 5-55 Response body parameters

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

Table 5-56 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_frags	Integer	Minimum number of TS segments in each M3U8 file

Status code: 400

Table 5-57 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
```

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

Example Responses

Status code: 400

Invalid parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Modifies the HLS configuration of a domain name.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateHlsConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateHlsConfigRequest request = new UpdateHlsConfigRequest();
        ModifyHlsConfig body = new ModifyHlsConfig();
```

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```
        List<PushDomainApplication> listbodyApplication = new ArrayList<>();
        listbodyApplication.add(
            new PushDomainApplication()
                .withName("live")
                .withHlsFragment(2)
                .withHlsTsCount(3)
                .withHlsMinFrags(3)
        );
        body.withApplication(listbodyApplication);
        body.withPushDomain("push.example.com");
        request.withBody(body);
        try {
            UpdateHlsConfigResponse response = client.updateHlsConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies the HLS configuration of a domain name.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateHlsConfigRequest()
        listApplicationbody = [
            PushDomainApplication(
                name="live",
                hls_fragment=2,
                hls_ts_count=3,
                hls_min_frags=3
            )
        ]
        request.body = ModifyHlsConfig(
            application=listApplicationbody,
```

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```
        push_domain="push.example.com"
    )
    response = client.update_hls_config(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

Modifies the HLS configuration of a domain name.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateHlsConfigRequest{}
    nameApplication:= "live"
    hlsFragmentApplication:= int32(2)
    hlsTsCountApplication:= int32(3)
    hlsMinFragsApplication:= int32(3)
    var listApplicationbody = []model.PushDomainApplication{
        {
            Name: &nameApplication,
            HlsFragment: &hlsFragmentApplication,
            HlsTsCount: &hlsTsCountApplication,
            HlsMinFrags: &hlsMinFragsApplication,
        },
    }
    request.Body = &model.ModifyHlsConfig{
        Application: listApplicationbody,
        PushDomain: "push.example.com",
    }
    response, err := client.UpdateHlsConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```

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```
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

5.12 Querying HLS Configurations of Domain Names

Function

Queries HLS configurations of domain names.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain/hls

Table 5-58 Path Parameters

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

Table 5-59 Query Parameters

Parameter	Mandatory	Type	Description
push_domain	Yes	String	Ingest domain name

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Request Parameters

Table 5-60 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 5-61 Response body parameters

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

Table 5-62 PushDomainApplication

Parameter	Type	Description
name	String	App name. The default value is **live**.
hls_fragment	Integer	HLS segment duration, in second.

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Parameter	Type	Description
hls_ts_count	Integer	Number of TS segments in each M3U8 file
hls_min_frags	Integer	Minimum number of TS segments in each M3U8 file

Status code: 400

Table 5-63 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_frags" : 3
  } ]
}
```

Status code: 400

Invalid parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListHlsConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListHlsConfigRequest request = new ListHlsConfigRequest();
        try {
            ListHlsConfigResponse response = client.listHlsConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHlsConfigRequest()
        response = client.list_hls_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHlsConfigRequest{}
    response, err := client.ListHlsConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

5.13 Modifying Origin Pull Settings

Function

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

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/domain/pull-sources

Table 5-64 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**.

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Request Parameters

Table 5-65 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.

Table 5-66 Request body parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

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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.

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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
additional_args	No	Map<String,String>	Parameter carried in the URL for origin pull from the customer's origin server.

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Response Parameters

Status code: 200

Origin pull settings modified.

Status code: 400

Table 5-67 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

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

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
```

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```
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;
import java.util.Map;
import java.util.HashMap;

public class UpdatePullSourcesConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdatePullSourcesConfigRequest request = new UpdatePullSourcesConfigRequest();
        ModifyPullSourcesConfig body = new ModifyPullSourcesConfig();
        Map<String, String> listbodyAdditionalArgs = new HashMap<>();
        listbodyAdditionalArgs.put("key1", "value1");
        listbodyAdditionalArgs.put("key2", "value2");
        List<String> listbodySources = new ArrayList<>();
        listbodySources.add("example1.test.com");
        listbodySources.add("example2.test.com");
        body.withAdditionalArgs(listbodyAdditionalArgs);
        body.withScheme(ModifyPullSourcesConfig.SchemeEnum.fromValue("http"));
        body.withSources(listbodySources);
        body.withSourceType(ModifyPullSourcesConfig.SourceTypeEnum.fromValue("domain"));
        body.withPlayDomain("pull.example.test.com");
        request.withBody(body);
        try {
            UpdatePullSourcesConfigResponse response = client.updatePullSourcesConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

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

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
```

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```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdatePullSourcesConfigRequest()
        listAdditionalArgsbody = {
            "key1": "value1",
            "key2": "value2"
        }
        listSourcesbody = [
            "example1.test.com",
            "example2.test.com"
        ]
        request.body = ModifyPullSourcesConfig(
            additional_args=listAdditionalArgsbody,
            scheme="http",
            sources=listSourcesbody,
            source_type="domain",
            play_domain="pull.example.test.com"
        )
        response = client.update_pull_sources_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdatePullSourcesConfigRequest{}
    var listAdditionalArgsbody = map[string]string{
        "key1": "value1",
        "key2": "value2",
    }
    var listSourcesbody = []string{
        "example1.test.com",
        "example2.test.com",
    }
    schemeModifyPullSourcesConfig:= model.GetModifyPullSourcesConfigSchemeEnum().HTTP
    request.Body = &model.ModifyPullSourcesConfig{
        AdditionalArgs: listAdditionalArgsbody,
        Scheme: &schemeModifyPullSourcesConfig,
        Sources: &listSourcesbody,
        SourceType: model.GetModifyPullSourcesConfigSourceTypeEnum().DOMAIN,
        PlayDomain: "pull.example.test.com",
    }
    response, err := client.UpdatePullSourcesConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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5.14 Querying Origin Pull Settings

Function

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

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain/pull-sources

Table 5-68 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 5-69 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 5-70 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.

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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 5-71 Response body parameters

Parameter	Type	Description
play_domain	String	Streaming domain name.
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.

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Parameter	Type	Description
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**.
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 5-72 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowPullSourcesConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);
```

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```
        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowPullSourcesConfigRequest request = new ShowPullSourcesConfigRequest();
        try {
            ShowPullSourcesConfigResponse response = client.showPullSourcesConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowPullSourcesConfigRequest()
        response = client.show_pull_sources_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
```

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```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowPullSourcesConfigRequest{}
    response, err := client.ShowPullSourcesConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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6 Notification Management

6.1 Adding and Modifying Stream Notification Configurations

Function

Adds and modifies stream notification configurations.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/notifications/publish

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**.

Table 6-2 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.

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Request Parameters

Table 6-3 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 6-4 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 6-5 Response body parameters

Parameter	Type	Description
error_code	String	Error Code

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Parameter	Type	Description
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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdatePublishTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdatePublishTemplateRequest request = new UpdatePublishTemplateRequest();
```

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```
        CallbackUrl body = new CallbackUrl();
        body.withUrl("https://endpoint.com/v1/test");
        request.withBody(body);
        try {
            UpdatePublishTemplateResponse response = client.updatePublishTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdatePublishTemplateRequest()
        request.body = CallbackUrl(
            url="https://endpoint.com/v1/test"
        )
        response = client.update_publish_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdatePublishTemplateRequest{}
    request.Body = &model.CallbackUrl{
        Url: "https://endpoint.com/v1/test",
    }
    response, err := client.UpdatePublishTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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6.2 Querying Stream Notification Configurations

Function

Queries stream notification configurations.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/notifications/publish

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.

Request Parameters

Table 6-8 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

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Table 6-9 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 6-10 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListPublishTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListPublishTemplateRequest request = new ListPublishTemplateRequest();
        try {
            ListPublishTemplateResponse response = client.listPublishTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListPublishTemplateRequest()
        response = client.list_publish_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListPublishTemplateRequest{}
    response, err := client.ListPublishTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

6.3 Deleting a Stream Notification Configuration

Function

Deletes a stream notification configuration.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/notifications/publish

Table 6-11 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 6-12 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name.

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Request Parameters

Table 6-13 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 6-14 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeletePublishTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeletePublishTemplateRequest request = new DeletePublishTemplateRequest();
        try {
            DeletePublishTemplateResponse response = client.deletePublishTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeletePublishTemplateRequest()
        response = client.delete_publish_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeletePublishTemplateRequest{}
    response, err := client.DeletePublishTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

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7 Authentication Management

7.1 Configuring a Referer 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**.

URI

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

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**.

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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
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**.
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**.

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Parameter	Mandatory	Type	Description
referer_auth_list	No	Array of strings	Domain name list. Each domain name is a regular expression. A maximum of 100 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 7-4 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class SetRefererChainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        SetRefererChainRequest request = new SetRefererChainRequest();
        SetRefererChainInfo body = new SetRefererChainInfo();
        List<String> listbodyRefererAuthList = new ArrayList<>();
        listbodyRefererAuthList.add("^http://test.*com$");
        listbodyRefererAuthList.add("abc.com");
        body.withRefererAuthList(listbodyRefererAuthList);
        body.withRefererWhiteList(SetRefererChainInfo.RefererWhiteListEnum.fromValue("false"));
        body.withRefererConfigEmpty(SetRefererChainInfo.RefererConfigEmptyEnum.fromValue("true"));
        body.withGuardSwitch(SetRefererChainInfo.GuardSwitchEnum.fromValue("true"));
        body.withDomain("play.example.huawei.com");
        request.withBody(body);
        try {
            SetRefererChainResponse response = client.setRefererChain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8
```

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```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetRefererChainRequest()
        listRefererAuthListbody = [
            "^http://test.*com$",
            "abc.com"
        ]
        request.body = SetRefererChainInfo(
            referer_auth_list=listRefererAuthListbody,
            referer_white_list="false",
            referer_config_empty="true",
            guard_switch="true",
            domain="play.example.huawei.com"
        )
        response = client.set_referer_chain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

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```
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SetRefererChainRequest{}
    var listRefererAuthListbody = []string{
        "^http://test.*com$",
        "abc.com",
    }
    refererWhiteListSetRefererChainInfo:= model.GetSetRefererChainInfoRefererWhiteListEnum().FALSE
    refererConfigEmptySetRefererChainInfo:= model.GetSetRefererChainInfoRefererConfigEmptyEnum().TRUE
    request.Body = &model.SetRefererChainInfo{
        RefererAuthList: &listRefererAuthListbody,
        RefererWhiteList: &refererWhiteListSetRefererChainInfo,
        RefererConfigEmpty: &refererConfigEmptySetRefererChainInfo,
        GuardSwitch: model.GetSetRefererChainInfoGuardSwitchEnum().TRUE,
        Domain: "play.example.huawei.com",
    }
    response, err := client.SetRefererChain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

7.2 Deleting a Referer Validation ACL

Function

Deletes a referer validation ACL.

Calling Method

For details, see **Calling APIs**.

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URI

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

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

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.
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

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Referer validation ACL deleted.

Status code: 400

Table 7-8 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**.

7.3 Querying Referer Validation ACLs

Function

Queries referer validation ACLs.

Calling Method

For details, see **Calling APIs**.

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URI

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

Table 7-9 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 7-10 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

Request Parameters

Table 7-11 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.

Response Parameters

Status code: 200

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Table 7-12 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 100 domain names can be included and separated by semicolons (;). This parameter is mandatory when **guard_switch** is set to **true**.

Status code: 400

Table 7-13 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/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

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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**.

7.4 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**.

URI

GET /v1/{project_id}/guard/ip

Table 7-14 Path Parameters

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

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Table 7-15 Query Parameters

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

Request Parameters

Table 7-16 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 7-17 Response header parameters

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

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Table 7-18 Response body parameters

Parameter	Type	Description
domain	String	Ingest or streaming domain name.
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 100 IP addresses are allowed. 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. That is, 8bit (32–24) is used to indicate the host ID. The subnet can contain 254 hosts (28 – 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 7-19 Response header parameters

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

Table 7-20 Response body parameters

Parameter	Type	Description
error_code	String	Error Code

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Parameter	Type	Description
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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListIpAuthListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
```

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```
            .withSk(sk);

    LiveClient client = LiveClient.newBuilder()
            .withCredential(auth)
            .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
            .build();
    ListIpAuthListRequest request = new ListIpAuthListRequest();
    try {
        ListIpAuthListResponse response = client.listIpAuthList(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListIpAuthListRequest()
        response = client.list_ip_auth_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
```

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```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListIpAuthListRequest{}
    response, err := client.ListIpAuthList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

7.5 Modifying an IP Address ACL

Function

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

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- 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**.

URI

PUT /v1/{project_id}/guard/ip

Table 7-21 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 7-22 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.

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Table 7-23 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 100 IP addresses are allowed. 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. That is, 8bit (32–24) is used to indicate the host ID. The subnet can contain 254 hosts (28 – 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 7-24 Response header parameters

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

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Status code: 400

Table 7-25 Response header parameters

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

Table 7-26 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

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```
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateIpAuthListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateIpAuthListRequest request = new UpdateIpAuthListRequest();
        IPAuthInfo body = new IPAuthInfo();
        body.withIpAuthList("192.168.0.0/16;192.168.0.8");
        body.withAuthType(IPAuthInfo.AuthTypeEnum.fromValue("WHITE"));
        body.withDomain("play.example.huawei.com");
        request.withBody(body);
        try {
            UpdateIpAuthListResponse response = client.updateIpAuthList(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateIpAuthListRequest()
        request.body = IPAuthInfo(
            ip_auth_list="192.168.0.0/16;192.168.0.8",
            auth_type="WHITE",
            domain="play.example.huawei.com"
        )
        response = client.update_ip_auth_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateIpAuthListRequest{}
    request.Body = &model.IpAuthInfo{
        IpAuthList: "192.168.0.0/16;192.168.0.8",
        AuthType: model.GetIpAuthInfoAuthTypeEnum().WHITE,
        Domain: "play.example.huawei.com",
    }
    response, err := client.UpdateIpAuthList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

7.6 Generating a Signed URL

Function

Generates a signed URL.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/auth/chain

Table 7-27 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**.

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Request Parameters

Table 7-28 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 7-29 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest or streaming domain name.
domain_type	Yes	String	Domain name type.
stream	Yes	String	Stream name, which is the same as the *StreamName* in an ingest or streaming URL.
app	Yes	String	Application name, which is the same as the *AppName* in an ingest or streaming URL.
check_level	No	Integer	Signing method C is mandatory. Check level. The value of **LiveID** consists of *AppName* and *StreamName*, that is, <*app_name*>/<*stream_name*>. 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**.

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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 7-30 Response body parameters

Parameter	Type	Description
keychain	Array of strings	Generated signed URLs.

Status code: 400

Table 7-31 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/
```

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

Status code: 400

Obtain the signed URL failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class CreateUrlAuthchainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateUrlAuthchainRequest request = new CreateUrlAuthchainRequest();
        CreateUrlAuthchainReq body = new CreateUrlAuthchainReq();
        body.withStartTime("string");
        body.withCheckLevel(0);
        body.withApp("string");
        body.withStream("string");
        body.withDomainType(CreateUrlAuthchainReq.DomainTypeEnum.fromValue("string"));
        body.withDomain("string");
        request.withBody(body);
        try {
            CreateUrlAuthchainResponse response = client.createUrlAuthchain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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```
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateUrlAuthchainRequest()
        request.body = CreateUrlAuthchainReq(
            start_time="string",
            check_level=0,
            app="string",
            stream="string",
            domain_type="string",
            domain="string"
        )
        response = client.create_url_authchain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

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```
variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateUrlAuthchainRequest{}
    startTimeCreateUrlAuthchainReq:= "string"
    checkLevelCreateUrlAuthchainReq:= int32(0)
    request.Body = &model.CreateUrlAuthchainReq{
        StartTime: &startTimeCreateUrlAuthchainReq,
        CheckLevel: &checkLevelCreateUrlAuthchainReq,
        App: "string",
        Stream: "string",
        DomainType: model.GetCreateUrlAuthchainReqDomainTypeEnum().STRING,
        Domain: "string",
    }
    response, err := client.CreateUrlAuthchain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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7.7 Querying Supported Areas of a Streaming Domain Name

Function

Queries supported areas of a streaming domain name.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain/geo-blocking

Table 7-32 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 7-33 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 7-34 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.

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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 7-35 Response header parameters

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

Table 7-36 Response body parameters

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

Table 7-37 GeoBlockingConfigInfo

Parameter	Type	Description
app	String	Application name.

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Parameter	Type	Description
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 7-38 Response header parameters

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

Table 7-39 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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListGeoBlockingConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListGeoBlockingConfigRequest request = new ListGeoBlockingConfigRequest();
        try {
            ListGeoBlockingConfigResponse response = client.listGeoBlockingConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
```

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```
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGeoBlockingConfigRequest()
        response = client.list_geo_blocking_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
```

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```
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGeoBlockingConfigRequest{}
    response, err := client.ListGeoBlockingConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

7.8 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**.

URI

PUT /v1/{project_id}/domain/geo-blocking

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Table 7-40 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 7-41 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

Request Parameters

Table 7-42 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 7-43 Request body parameters

Parameter	Mandatory	Type	Description
app	Yes	String	Application name.

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Parameter	Mandatory	Type	Description
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 7-44 Response header parameters

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

Status code: 400

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Table 7-45 Response header parameters

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

Table 7-46 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;
```

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```
import java.util.List;
import java.util.ArrayList;

public class UpdateGeoBlockingConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateGeoBlockingConfigRequest request = new UpdateGeoBlockingConfigRequest();
        GeoBlockingConfigInfo body = new GeoBlockingConfigInfo();
        List<String> listbodyAreaWhitelist = new ArrayList<>();
        listbodyAreaWhitelist.add("CN-IN");
        listbodyAreaWhitelist.add("CN-HK");
        listbodyAreaWhitelist.add("CN-MO");
        listbodyAreaWhitelist.add("CN-TW");
        listbodyAreaWhitelist.add("BR");
        body.withAreaWhitelist(listbodyAreaWhitelist);
        body.withApp("live");
        request.withBody(body);
        try {
            UpdateGeoBlockingConfigResponse response = client.updateGeoBlockingConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
```

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```
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGeoBlockingConfigRequest()
        listAreaWhitelistbody = [
            "CN-IN",
            "CN-HK",
            "CN-MO",
            "CN-TW",
            "BR"
        ]
        request.body = GeoBlockingConfigInfo(
            area_whitelist=listAreaWhitelistbody,
            app="live"
        )
        response = client.update_geo_blocking_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGeoBlockingConfigRequest{}
    var listAreaWhitelistbody = []string{
        "CN-IN",
        "CN-HK",
```

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```
        "CN-MO",
        "CN-TW",
        "BR",
    }
    request.Body = &model.GeoBlockingConfigInfo{
        AreaWhitelist: &listAreaWhitelistbody,
        App: "live",
    }
    response, err := client.UpdateGeoBlockingConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

7.9 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**.

URI

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

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Table 7-47 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 7-48 Query Parameters

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

Request Parameters

Table 7-49 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.

Response Parameters

Status code: 200

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Table 7-50 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.
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 7-51 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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Status code: 401

Table 7-52 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 7-53 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

Table 7-54 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" : "IbBIzklRGCyMEd18oPV9sxAuuwNIzT81",
  "auth_type" : "d_sha256",
  "timeout" : 3600
}
```

Status code: 400

Parameter verification failed.

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

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```
  "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowDomainKeyChainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);
```

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```
        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowDomainKeyChainRequest request = new ShowDomainKeyChainRequest();
        try {
            ShowDomainKeyChainResponse response = client.showDomainKeyChain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowDomainKeyChainRequest()
        response = client.show_domain_key_chain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
```

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```
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowDomainKeyChainRequest{}
    response, err := client.ShowDomainKeyChain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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7.10 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**.

URI

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

Table 7-55 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 7-56 Query Parameters

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

Request Parameters

Table 7-57 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.

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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.

Table 7-58 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.

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Parameter	Mandatory	Type	Description
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 7-59 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 401

Table 7-60 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

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Table 7-61 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

Table 7-62 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"
}
```

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Updates the URL validation configuration of a specified domain name.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateDomainKeyChainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDomainKeyChainRequest request = new UpdateDomainKeyChainRequest();
        KeyChainInfo body = new KeyChainInfo();
        body.withTimeout(3600);
        body.withAuthType(KeyChainInfo.AuthTypeEnum.fromValue("d_sha256"));
        body.withKey("IbBIzklRGCyMEd18oPV9sxAuuwNIzT81");
        request.withBody(body);
        try {
            UpdateDomainKeyChainResponse response = client.updateDomainKeyChain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
```

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```
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Updates the URL validation configuration of a specified domain name.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDomainKeyChainRequest()
        request.body = KeyChainInfo(
            timeout=3600,
            auth_type="d_sha256",
            key="IbBIzklRGCyMEd18oPV9sxAuuwNIzT81"
        )
        response = client.update_domain_key_chain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Updates the URL validation configuration of a specified domain name.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

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```
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDomainKeyChainRequest{}
    request.Body = &model.KeyChainInfo{
        Timeout: int32(3600),
        AuthType: model.GetKeyChainInfoAuthTypeEnum().D_SHA256,
        Key: "IbBIzklRGCyMEd18oPV9sxAuuwNIzT81",
    }
    response, err := client.UpdateDomainKeyChain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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7.11 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**.

URI

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

Table 7-63 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 7-64 Query Parameters

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

Request Parameters

Table 7-65 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.

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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

Deleted.

Status code: 400

Table 7-66 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 401

Table 7-67 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 7-68 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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Status code: 500

Table 7-69 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteDomainKeyChainSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteDomainKeyChainRequest request = new DeleteDomainKeyChainRequest();
        try {
            DeleteDomainKeyChainResponse response = client.deleteDomainKeyChain(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainKeyChainRequest()
        response = client.delete_domain_key_chain(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainKeyChainRequest{}
    response, err := client.DeleteDomainKeyChain(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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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**.

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8 Snapshot Management

8.1 Creating a Snapshot Capturing Template

Function

API for creating a snapshot capturing template.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/stream/snapshot

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**.

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Request Parameters

Table 8-2 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 8-3 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name
app_name	Yes	String	Application name
auth_key	No	String	Callback authentication key value Length range: [32-128] If callback authentication is required, specify this parameter. Otherwise, leave it empty.
time_interval	Yes	Integer	Snapshot capturing frequency Value range: 5 to 3600 Unit: second

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Parameter	Mandatory	Type	Description
object_write_mode	Yes	Integer	Method for storing snapshots in an OBS bucket: • **0**: **All**. A snapshot file name contains the timestamp. All snapshot files of each stream are stored in OBS. Example: snapshot/{domain}/{app_name}/{stream_name}/{UnixTimestamp}.jpg • **1**: **Latest**. A snapshot file name does not contain the timestamp. Only the latest snapshot file of each stream will be saved. A new snapshot file overwrites the previous one. Example: snapshot/{domain}/{app_name}/{stream_name}.jpg
obs_location	Yes	**ObsFileAddr** object	OBS bucket location information
call_back_enable	No	String	Whether to enable callback notification. • **on**: enabled • **off**: disabled
call_back_url	No	String	Address of the server for receiving callback notifications. The value must be a valid URL that contains a protocol, which can be HTTP or HTTPS. After snapshot capturing, Live pushes the snapshot status information to this address.

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Parameter	Mandatory	Type	Description
image_object_format	No	String	Naming rule of stored snapshots. Only JPG files are supported. Including: • *{obs_object}*: OBS bucket path, that is, the value of **obs_location.object** • *{domain}*: domain name • *{app}*: application name • *{stream}*: stream name In the full storage mode: • *{unix_time}*: timestamp, in seconds • *{unix_time_milli}*: timestamp, in milliseconds • *{fmt_time_utc}*: UTC time in the format of YYYYMMDDhhmmss, for example, 20060102070405 • *{fmt_time_local}*: local time in the format of YYYYMMDDhhmmss, for example, 20060102150405 A time template is mandatory.
image_access_protocol	No	String	Screenshot storage file access protocol, only supports http and https formats.
image_access_domain	No	String	Screenshot storage file access domain name.

Table 8-4 ObsFileAddr

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where the OBS bucket is located. The region must be the same as that of the Live service.

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Parameter	Mandatory	Type	Description
object	No	String	OBS object path, which complies with the OSS Object definition. • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory for storing the snapshot needs to be specified.

Response Parameters

Status code: 200

The snapshot capturing template has been configured.

Status code: 400

Table 8-5 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Creates a snapshot capturing template.

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

{
  "domain" : "play.example.huawei.com",
  "app_name" : "live",
  "time_interval" : 5,
  "object_write_mode" : 1,
  "obs_location" : {
    "bucket" : "cls-test",
    "location" : "region1",
    "object" : "/ffff/aa/"
  }
}
```

Example Responses

Status code: 400

The snapshot capturing template configuration failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Creates a snapshot capturing template.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class CreateSnapshotConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateSnapshotConfigRequest request = new CreateSnapshotConfigRequest();
        LiveSnapshotConfig body = new LiveSnapshotConfig();
        ObsFileAddr obsLocationbody = new ObsFileAddr();
        obsLocationbody.withBucket("cls-test")
            .withLocation("region1")
            .withObject("/ffff/aa/");
        body.withObsLocation(obsLocationbody);
        body.withObjectWriteMode(1);
        body.withTimeInterval(5);
        body.withAppName("live");
        body.withDomain("play.example.huawei.com");
        request.withBody(body);
        try {
            CreateSnapshotConfigResponse response = client.createSnapshotConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
```

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```
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creates a snapshot capturing template.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateSnapshotConfigRequest()
        obsLocationbody = ObsFileAddr(
            bucket="cls-test",
            location="region1",
            object="/ffff/aa/"
        )
        request.body = LiveSnapshotConfig(
            obs_location=obsLocationbody,
            object_write_mode=1,
            time_interval=5,
            app_name="live",
            domain="play.example.huawei.com"
        )
        response = client.create_snapshot_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates a snapshot capturing template.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSnapshotConfigRequest{}
    obsLocationbody := &model.ObsFileAddr{
        Bucket: "cls-test",
        Location: "region1",
        Object: "/ffff/aa/",
    }
    request.Body = &model.LiveSnapshotConfig{
        ObsLocation: obsLocationbody,
        ObjectWriteMode: int32(1),
        TimeInterval: int32(5),
        AppName: "live",
        Domain: "play.example.huawei.com",
    }
    response, err := client.CreateSnapshotConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The snapshot capturing template has been configured.
400	The snapshot capturing template configuration failed.

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Error Codes

See **Error Codes**.

8.2 Modifying a Snapshot Capturing Template

Function

API for modifying a snapshot capturing template.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/stream/snapshot

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**.

Request Parameters

Table 8-7 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.

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

Table 8-8 Request body parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Ingest domain name
app_name	Yes	String	Application name
auth_key	No	String	Callback authentication key value Length range: [32-128] If callback authentication is required, specify this parameter. Otherwise, leave it empty.
time_interval	Yes	Integer	Snapshot capturing frequency Value range: 5 to 3600 Unit: second
object_write_mode	Yes	Integer	Method for storing snapshots in an OBS bucket: • **0**: **All**. A snapshot file name contains the timestamp. All snapshot files of each stream are stored in OBS. Example: snapshot/{domain}/{app_name}/{stream_name}/{UnixTimestamp}.jpg • **1**: **Latest**. A snapshot file name does not contain the timestamp. Only the latest snapshot file of each stream will be saved. A new snapshot file overwrites the previous one. Example: snapshot/{domain}/{app_name}/{stream_name}.jpg
obs_location	Yes	**ObsFileAddr** object	OBS bucket location information

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Parameter	Mandatory	Type	Description
call_back_enable	No	String	Whether to enable callback notification. • **on**: enabled • **off**: disabled
call_back_url	No	String	Address of the server for receiving callback notifications. The value must be a valid URL that contains a protocol, which can be HTTP or HTTPS. After snapshot capturing, Live pushes the snapshot status information to this address.
image_object_format	No	String	Naming rule of stored snapshots. Only JPG files are supported. Including: • *{obs_object}*: OBS bucket path, that is, the value of **obs_location.object** • *{domain}*: domain name • *{app}*: application name • *{stream}*: stream name In the full storage mode: • *{unix_time}*: timestamp, in seconds • *{unix_time_milli}*: timestamp, in milliseconds • *{fmt_time_utc}*: UTC time in the format of YYYYMMDDhhmmss, for example, 20060102070405 • *{fmt_time_local}*: local time in the format of YYYYMMDDhhmmss, for example, 20060102150405 A time template is mandatory.
image_access_protocol	No	String	Screenshot storage file access protocol, only supports http and https formats.
image_access_domain	No	String	Screenshot storage file access domain name.

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Table 8-9 ObsFileAddr

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name
location	Yes	String	Region where the OBS bucket is located. The region must be the same as that of the Live service.
object	No	String	OBS object path, which complies with the OSS Object definition. • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory for storing the snapshot needs to be specified.

Response Parameters

Status code: 200

The snapshot capturing template has been modified.

Status code: 400

Table 8-10 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Modifies a snapshot capturing template.

```
PUT https://{endpoint}/v1/{project_id}/stream/snapshot

{
  "domain" : "play.example.huawei.com",
  "app_name" : "live",
  "time_interval" : 5,
  "object_write_mode" : 1,
  "obs_location" : {
    "bucket" : "cls-test",
    "location" : "region1",
    "object" : "/ffff/aa/"
```

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```
  }
}
```

Example Responses

Status code: 400

The snapshot capturing template modification failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Modifies a snapshot capturing template.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateSnapshotConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateSnapshotConfigRequest request = new UpdateSnapshotConfigRequest();
        LiveSnapshotConfig body = new LiveSnapshotConfig();
        ObsFileAddr obsLocationbody = new ObsFileAddr();
        obsLocationbody.withBucket("cls-test")
            .withLocation("region1")
            .withObject("/ffff/aa/");
        body.withObsLocation(obsLocationbody);
        body.withObjectWriteMode(1);
        body.withTimeInterval(5);
        body.withAppName("live");
        body.withDomain("play.example.huawei.com");
```

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```
        request.withBody(body);
        try {
            UpdateSnapshotConfigResponse response = client.updateSnapshotConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies a snapshot capturing template.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSnapshotConfigRequest()
        obsLocationbody = ObsFileAddr(
            bucket="cls-test",
            location="region1",
            object="/ffff/aa/"
        )
        request.body = LiveSnapshotConfig(
            obs_location=obsLocationbody,
            object_write_mode=1,
            time_interval=5,
            app_name="live",
            domain="play.example.huawei.com"
        )
        response = client.update_snapshot_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

Modifies a snapshot capturing template.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSnapshotConfigRequest{}
    obsLocationbody := &model.ObsFileAddr{
        Bucket: "cls-test",
        Location: "region1",
        Object: "/ffff/aa/",
    }
    request.Body = &model.LiveSnapshotConfig{
        ObsLocation: obsLocationbody,
        ObjectWriteMode: int32(1),
        TimeInterval: int32(5),
        AppName: "live",
        Domain: "play.example.huawei.com",
    }
    response, err := client.UpdateSnapshotConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The snapshot capturing template has been modified.
400	The snapshot capturing template modification failed.

Error Codes

See **Error Codes**.

8.3 Querying Snapshot Capturing Templates

Function

API for querying snapshot capturing templates.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/stream/snapshot

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	Domain name
app_name	No	String	Application name
limit	No	Integer	Number of records on each page Value range: [1, 100] Default value: 10

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Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

Request Parameters

Table 8-13 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: 200

Table 8-14 Response body parameters

Parameter	Type	Description
total	Integer	Total number of records
snapshot_config_list	Array of **LiveSnapshotConfig** objects	Snapshot capturing
limit	Integer	Number of records on each page

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Parameter	Type	Description
offset	Integer	Offset

Table 8-15 LiveSnapshotConfig

Parameter	Type	Description
domain	String	Ingest domain name
app_name	String	Application name
auth_key	String	Callback authentication key value Length range: [32-128] If callback authentication is required, specify this parameter. Otherwise, leave it empty.
time_interval	Integer	Snapshot capturing frequency Value range: 5 to 3600 Unit: second
object_write_mode	Integer	Method for storing snapshots in an OBS bucket: • **0**: **All**. A snapshot file name contains the timestamp. All snapshot files of each stream are stored in OBS. Example: snapshot/{domain}/{app_name}/{stream_name}/{UnixTimestamp}.jpg • **1**: **Latest**. A snapshot file name does not contain the timestamp. Only the latest snapshot file of each stream will be saved. A new snapshot file overwrites the previous one. Example: snapshot/{domain}/{app_name}/{stream_name}.jpg
obs_location	**ObsFileAddr** object	OBS bucket location information
call_back_enable	String	Whether to enable callback notification. • **on**: enabled • **off**: disabled

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Parameter	Type	Description
call_back_url	String	Address of the server for receiving callback notifications. The value must be a valid URL that contains a protocol, which can be HTTP or HTTPS. After snapshot capturing, Live pushes the snapshot status information to this address.
image_object_format	String	Naming rule of stored snapshots. Only JPG files are supported. Including: • *{obs_object}*: OBS bucket path, that is, the value of **obs_location.object** • *{domain}*: domain name • *{app}*: application name • *{stream}*: stream name In the full storage mode: • *{unix_time}*: timestamp, in seconds • *{unix_time_milli}*: timestamp, in milliseconds • *{fmt_time_utc}*: UTC time in the format of YYYYMMDDhhmmss, for example, 20060102070405 • *{fmt_time_local}*: local time in the format of YYYYMMDDhhmmss, for example, 20060102150405 A time template is mandatory.
image_access_protocol	String	Screenshot storage file access protocol, only supports http and https formats.
image_access_domain	String	Screenshot storage file access domain name.

Table 8-16 ObsFileAddr

Parameter	Type	Description
bucket	String	OBS bucket name
location	String	Region where the OBS bucket is located. The region must be the same as that of the Live service.

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Parameter	Type	Description
object	String	OBS object path, which complies with the OSS Object definition. • If this parameter is used for an input, an object must be specified. • If this parameter is used for an output, only the directory for storing the snapshot needs to be specified.

Status code: 400

Table 8-17 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Queries snapshot capturing templates.

```
GET https://{endpoint}/v1/{project_id}/stream/snapshot?
domain=testsnapshot.com&app_name=live&offset=0&limit=10
```

Example Responses

Status code: 200

The snapshot capturing template query succeeded.

```
{
  "total" : 2,
  "offset" : 0,
  "limit" : 10,
  "snapshot_config_list" : [ {
    "domain" : "testsnapshot.huawei.com",
    "app_name" : "live",
    "time_interval" : 5,
    "object_write_mode" : 1,
    "obs_location" : {
      "bucket" : "obs-d95a",
      "location" : "region1",
      "object" : "test1/"
    }
  }, {
    "domain" : "testsnapshot.huawei.com",
    "app_name" : "src",
    "time_interval" : 5,
    "object_write_mode" : 1,
    "obs_location" : {
      "bucket" : "obs-d95a",
      "location" : "region1",
```

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```
    "object" : "test2/"
   }
  } ]
}
```

Status code: 400

The snapshot capturing template query failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListSnapshotConfigsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListSnapshotConfigsRequest request = new ListSnapshotConfigsRequest();
        try {
            ListSnapshotConfigsResponse response = client.listSnapshotConfigs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```

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```
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListSnapshotConfigsRequest()
        response = client.list_snapshot_configs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
```

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```
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListSnapshotConfigsRequest{}
    response, err := client.ListSnapshotConfigs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The snapshot capturing template query succeeded.
400	The snapshot capturing template query failed.

Error Codes

See **Error Codes**.

8.4 Deleting a Snapshot Capturing Template

Function

API for deleting a snapshot capturing template.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/stream/snapshot

Table 8-18 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**.

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Table 8-19 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name
app_name	Yes	String	Application name

Request Parameters

Table 8-20 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.

Response Parameters

Status code: 200

The snapshot capturing template has been deleted.

Status code: 400

Table 8-21 Response body parameters

Parameter	Type	Description
error_code	String	Error Code

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Parameter	Type	Description
error_msg	String	Error description

Example Requests

Deletes a snapshot capturing template.

```
DELETE https://{endpoint}/v1/{project_id}/stream/snapshot?domain=testsnapshot.com&app_name=live
```

Example Responses

Status code: 400

The snapshot capturing template deletion failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteSnapshotConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteSnapshotConfigRequest request = new DeleteSnapshotConfigRequest();
        try {
```

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```
            DeleteSnapshotConfigResponse response = client.deleteSnapshotConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteSnapshotConfigRequest()
        response = client.delete_snapshot_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

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```
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteSnapshotConfigRequest{}
    response, err := client.DeleteSnapshotConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The snapshot capturing template has been deleted.
400	The snapshot capturing template deletion failed.

Error Codes

See **Error Codes**.

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9 Log Management

9.1 Obtaining Live Streaming Logs

Function

This API is used to obtain live streaming logs by domain name. The log events are separated by vertical bars (|) and packaged at an interval of 5 minutes.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/logs

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**.

Table 9-2 Query Parameters

Parameter	Mandatory	Type	Description
play_domain	Yes	String	Streaming domain name.

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Parameter	Mandatory	Type	Description
start_time	Yes	Datetime	Start time of the query time range. The value is in the format of YYYY-MM-DDTHH:mm:ssZ (UTC time). For example, if you want to query data generated from 16:00:00 on March 4, 2020 GMT+08:00, set this parameter to **2020-03-04T08:00:00Z**. Only data of the last three months can be queried.
end_time	Yes	Datetime	End time of the query time range. The value is in the format of YYYY-MM-DDTHH:mm:ssZ (UTC time). For example, if you want to query data generated until 16:00:00 on March 4, 2020 GMT+08:00, set this parameter to **2020-03-04T08:00:00Z**. The query time range cannot be longer than 7 days.

Request Parameters

Table 9-3 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.

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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 9-4 Response body parameters

Parameter	Type	Description
total	Integer	Total number of records that meet the search criteria.
domain	String	Streaming domain name.
logs	Array of **LogInfo** objects	Log list.

Table 9-5 LogInfo

Parameter	Type	Description
name	String	Log file name, in the format of *{Domain}_{logStartTimeStamp}*.**log.gz**.
url	String	Link for downloading the log file.
size	Long	Log file size.
start_time	String	Start time of the logs in the log file (Beijing time).
end_time	String	End time of the logs in the log file (Beijing time).

Status code: 400

Table 9-6 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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Example Requests

Queries playback logs of a domain name.

```
GET https://{endpoint}/v1/{project_id}/logs?
play_domain=play.example.com&start_time=2020-03-04T08:00:00Z&end_time=2020-03-04T09:00:00Z
```

Example Responses

Status code: 200

Live streaming logs obtained.

```
{
  "total" : 1,
  "domain" : "play.example.com",
  "logs" : [ {
    "name" : "play.example.com_20200304160000.log.gz",
    "url" : "https://xxxxxxxxx/play.example.com_20200304160000.log.gz",
    "size" : 600,
    "start_time" : "2020-03-04T16:00:00+08:00",
    "end_time" : "2020-03-04T16:04:59+08:00"
  } ]
}
```

Status code: 400

Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListLiveSampleLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
```

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```
            .withAk(ak)
            .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
            .withCredential(auth)
            .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
            .build();
        ListLiveSampleLogsRequest request = new ListLiveSampleLogsRequest();
        try {
            ListLiveSampleLogsResponse response = client.listLiveSampleLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLiveSampleLogsRequest()
        response = client.list_live_sample_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLiveSampleLogsRequest{}
    response, err := client.ListLiveSampleLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Live streaming logs obtained.
400	Incorrect parameter.

Error Codes

See **Error Codes**.

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10 Recording Management

10.1 Creating a Recording Template

Function

Creates a recording template. The recording template only takes effect for streams that are pushed after the template is created. Using this function will incur live recording fees.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/record/rules

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**.

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Request Parameters

Table 10-2 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 10-3 Request body parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name.
app	Yes	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
stream	Yes	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.

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Parameter	Mandatory	Type	Description
record_type	No	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	Yes	**DefaultRecordConfig** object	Default recording template.

Table 10-4 DefaultRecordConfig

Parameter	Mandatory	Type	Description
record_format	Yes	Array of strings	Recording format.
obs_addr	Yes	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	No	**HLSRecordConfig** object	HLS configuration rule.
flv_config	No	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	No	**MP4RecordConfig** object	MP4 configuration rule.

Table 10-5 RecordObsFileAddr

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name.

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Parameter	Mandatory	Type	Description
location	Yes	String	ID of the region where the OBS bucket resides.
object	Yes	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-6 HLSRecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.
record_prefix	No	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}/{app}/{record_type}/{record_format}/{stream}{file_start_time}/{stream}{file_start_time}*.
record_ts_prefix	No	String	TS file name prefix. The default value is *{file_start_time_unix}{file_end_time_unix}{ts_sequence_number}*.
record_slice_duration	No	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10

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Parameter	Mandatory	Type	Description
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

Table 10-7 FLVRecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	No	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

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Table 10-8 MP4RecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	No	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Response Parameters

Status code: 201

Table 10-9 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 10-10 Response body parameters

Parameter	Type	Description
id	String	Rule ID, which is returned by the server. This parameter is not needed during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
stream	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.
record_type	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	**DefaultRecordConfig** object	Default recording template.
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Table 10-11 DefaultRecordConfig

Parameter	Type	Description
record_format	Array of strings	Recording format.

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Parameter	Type	Description
obs_addr	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	**HLSRecordConfig** object	HLS configuration rule.
flv_config	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	**MP4RecordConfig** object	MP4 configuration rule.

Table 10-12 RecordObsFileAddr

Parameter	Type	Description
bucket	String	OBS bucket name.
location	String	ID of the region where the OBS bucket resides.
object	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-13 HLSRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.
record_prefix	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}*/*{app}*/*{record_type}*/*{record_format}*/*{stream}*_*{file_start_time}*/*{stream}*_*{file_start_time}*.
record_ts_prefix	String	TS file name prefix. The default value is *{file_start_time_unix}*_*{file_end_time_unix}*_*{ts_sequence_number}*.

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Parameter	Type	Description
record_slice_duration	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10
record_max_duration_to_merge_file	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

Table 10-14 FLVRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

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Table 10-15 MP4RecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Status code: 400

Table 10-16 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-17 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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Example Requests

Creates a recording rule.

```
POST https://{endpoint}/v1/{project_id}/record/rules

{
  "publish_domain" : "publish.example.com",
  "app" : "live",
  "stream" : "*",
  "record_type" : "CONTINUOUS_RECORD",
  "default_record_config" : {
    "record_format" : [ "HLS", "FLV" ],
    "hls_config" : {
      "record_cycle" : 3600,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_type}/{record_format}/
{stream}_{file_start_time}/{file_start_time}",
      "record_ts_prefix" : "{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
      "record_slice_duration" : 10,
      "record_max_duration_to_merge_file" : 0
    },
    "flv_config" : {
      "record_cycle" : 9000,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/
{file_start_time}",
      "record_max_duration_to_merge_file" : 0
    },
    "obs_addr" : {
      "bucket" : "mybucket",
      "location" : "region1",
      "object" : "record/"
    }
  }
}
```

Example Responses

Status code: 400

Failed to create the recording template.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Creates a recording rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
```

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```
import java.util.ArrayList;

public class CreateRecordRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateRecordRuleRequest request = new CreateRecordRuleRequest();
        RecordRuleRequest body = new RecordRuleRequest();
        FLVRecordConfig flvConfigDefaultRecordConfig = new FLVRecordConfig();
        flvConfigDefaultRecordConfig.withRecordCycle(9000)
            .withRecordPrefix("Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}")
            .withRecordMaxDurationToMergeFile(0);
        HLSRecordConfig hlsConfigDefaultRecordConfig = new HLSRecordConfig();
        hlsConfigDefaultRecordConfig.withRecordCycle(3600)
            .withRecordPrefix("Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}")
            .withRecordTsPrefix("{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}")
            .withRecordSliceDuration(10)
            .withRecordMaxDurationToMergeFile(0);
        RecordObsFileAddr obsAddrDefaultRecordConfig = new RecordObsFileAddr();
        obsAddrDefaultRecordConfig.withBucket("mybucket")
            .withLocation(RecordObsFileAddr.LocationEnum.fromValue("region1"))
            .withObject("record/");
        List<VideoFormatVar> listDefaultRecordConfigRecordFormat = new ArrayList<>();
        listDefaultRecordConfigRecordFormat.add(VideoFormatVar.fromValue("HLS"));
        listDefaultRecordConfigRecordFormat.add(VideoFormatVar.fromValue("FLV"));
        DefaultRecordConfig defaultRecordConfigbody = new DefaultRecordConfig();
        defaultRecordConfigbody.withRecordFormat(listDefaultRecordConfigRecordFormat)
            .withObsAddr(obsAddrDefaultRecordConfig)
            .withHlsConfig(hlsConfigDefaultRecordConfig)
            .withFlvConfig(flvConfigDefaultRecordConfig);
        body.withDefaultRecordConfig(defaultRecordConfigbody);
        body.withRecordType(RecordRuleRequest.RecordTypeEnum.fromValue("CONTINUOUS_RECORD"));
        body.withStream("*");
        body.withApp("live");
        body.withPublishDomain("publish.example.com");
        request.withBody(body);
        try {
            CreateRecordRuleResponse response = client.createRecordRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```

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```
    }
}
```

Python

Creates a recording rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateRecordRuleRequest()
        flvConfigDefaultRecordConfig = FLVRecordConfig(
            record_cycle=9000,
            record_prefix="Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}",
            record_max_duration_to_merge_file=0
        )
        hlsConfigDefaultRecordConfig = HLSRecordConfig(
            record_cycle=3600,
            record_prefix="Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}",
            record_ts_prefix="{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
            record_slice_duration=10,
            record_max_duration_to_merge_file=0
        )
        obsAddrDefaultRecordConfig = RecordObsFileAddr(
            bucket="mybucket",
            location="region1",
            object="record/"
        )
        listRecordFormatDefaultRecordConfig = [
            "HLS",
            "FLV"
        ]
        defaultRecordConfigbody = DefaultRecordConfig(
            record_format=listRecordFormatDefaultRecordConfig,
            obs_addr=obsAddrDefaultRecordConfig,
            hls_config=hlsConfigDefaultRecordConfig,
            flv_config=flvConfigDefaultRecordConfig
        )
        request.body = RecordRuleRequest(
            default_record_config=defaultRecordConfigbody,
            record_type="CONTINUOUS_RECORD",
            stream="*",
            app="live",
            publish_domain="publish.example.com"
```

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```
        )
        response = client.create_record_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates a recording rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateRecordRuleRequest{}
    recordPrefixFlvConfig:= "Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}"
    recordMaxDurationToMergeFileFlvConfig:= int32(0)
    flvConfigDefaultRecordConfig := &model.FlvRecordConfig{
        RecordCycle: int32(9000),
        RecordPrefix: &recordPrefixFlvConfig,
        RecordMaxDurationToMergeFile: &recordMaxDurationToMergeFileFlvConfig,
    }
    recordPrefixHlsConfig:= "Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}"
    recordTsPrefixHlsConfig:= "{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}"
    recordSliceDurationHlsConfig:= int32(10)
    recordMaxDurationToMergeFileHlsConfig:= int32(0)
    hlsConfigDefaultRecordConfig := &model.HlsRecordConfig{
        RecordCycle: int32(3600),
        RecordPrefix: &recordPrefixHlsConfig,
        RecordTsPrefix: &recordTsPrefixHlsConfig,
        RecordSliceDuration: &recordSliceDurationHlsConfig,
        RecordMaxDurationToMergeFile: &recordMaxDurationToMergeFileHlsConfig,
    }
    obsAddrDefaultRecordConfig := &model.RecordObsFileAddr{
        Bucket: "mybucket",
        Location: model.GetRecordObsFileAddrLocationEnum().REGION1,
```

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```
        Object: "record/",
    }
    var listRecordFormatDefaultRecordConfig = []model.VideoFormatVarRecordFormat{
        model.GetVideoFormatVarRecordFormatEnum().HLS,
        model.GetVideoFormatVarRecordFormatEnum().FLV,
    }
    defaultRecordConfigbody := &model.DefaultRecordConfig{
        RecordFormat: listRecordFormatDefaultRecordConfig,
        ObsAddr: obsAddrDefaultRecordConfig,
        HlsConfig: hlsConfigDefaultRecordConfig,
        FlvConfig: flvConfigDefaultRecordConfig,
    }
    recordTypeRecordRuleRequest:= model.GetRecordRuleRequestRecordTypeEnum().CONTINUOUS_RECORD
    request.Body = &model.RecordRuleRequest{
        DefaultRecordConfig: defaultRecordConfigbody,
        RecordType: &recordTypeRecordRuleRequest,
        Stream: "*",
        App: "live",
        PublishDomain: "publish.example.com",
    }
    response, err := client.CreateRecordRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Recording template created.
400	Failed to create the recording template.

Error Codes

See **Error Codes**.

10.2 Querying Recording Templates

Function

This API is used to query recording templates that meet specific conditions.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v1/{project_id}/record/rules

Table 10-18 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 10-19 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	No	String	Ingest domain name.
app	No	String	Application name.
stream	No	String	Stream name.
record_type	No	String	Recording type. If this parameter is left empty, templates of all recording types are queried. The value can be **CONTINUOUS_RECORD** or **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
offset	No	Integer	Offset, which is the position where the query starts. The value must be greater than or equal to 0.

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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 10-20 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.

Response Parameters

Status code: 200

Table 10-21 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 10-22 Response body parameters

Parameter	Type	Description
total	Integer	Total number of elements in the query result.
record_config	Array of **RecordRule** objects	Recording template array.

Table 10-23 RecordRule

Parameter	Type	Description
id	String	Rule ID, which is returned by the server. This parameter is not needed during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
stream	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.
record_type	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	**DefaultRecordConfig** object	Default recording template.
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

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Parameter	Type	Description
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Table 10-24 DefaultRecordConfig

Parameter	Type	Description
record_format	Array of strings	Recording format.
obs_addr	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	**HLSRecordConfig** object	HLS configuration rule.
flv_config	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	**MP4RecordConfig** object	MP4 configuration rule.

Table 10-25 RecordObsFileAddr

Parameter	Type	Description
bucket	String	OBS bucket name.
location	String	ID of the region where the OBS bucket resides.
object	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-26 HLSRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.

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Parameter	Type	Description
record_prefix	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}*/*{app}*/*{record_type}*/*{record_format}*/*{stream}*-*{file_start_time}*/*{stream}*-*{file_start_time}*.
record_ts_prefix	String	TS file name prefix. The default value is *{file_start_time_unix}*-*{file_end_time_unix}*-*{ts_sequence_number}*.
record_slice_duration	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10
record_max_duration_to_merge_file	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

Table 10-27 FLVRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.

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Parameter	Type	Description
record_prefix	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Table 10-28 MP4RecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Status code: 400

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Table 10-29 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-30 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Queries recording rules.

```
GET https://live.hwcloud.com/v1/{project_id}/record/rules?publish_domain=xxx
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "total" : 1,
  "record_config" : [ {
    "id" : "42810594c2fc9xxxx36b7784c76a06e8",
    "publish_domain" : "publish.example.com",
    "app" : "live",
    "stream" : "*",
    "record_type" : "CONTINUOUS_RECORD",
    "default_record_config" : {
      "record_format" : [ "HLS" ],
      "obs_addr" : {
        "bucket" : "mybucket",
        "location" : "region1",
        "object" : "record/"
      },
      "hls_config" : {
        "record_cycle" : 900,
        "record_prefix" : "record-publish_domain-app-stream-file_start_time_unix/record-publish_domain-app-stream-file_start_time_unix",
        "record_ts_prefix" : "{stream}-{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
        "record_slice_duration" : 10,
        "record_max_duration_to_merge_file" : 60
      }
    }
  } ]
}
```

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Status code: 400

Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListRecordRulesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListRecordRulesRequest request = new ListRecordRulesRequest();
        try {
            ListRecordRulesResponse response = client.listRecordRules(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListRecordRulesRequest()
        response = client.list_record_rules(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

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```
        Build())

    request := &model.ListRecordRulesRequest{}
    response, err := client.ListRecordRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Incorrect parameter.

Error Codes

See **Error Codes**.

10.3 Modifying a Recording Template

Function

This API is used to modify a recording template. The modified recording template only takes effect for streams that are pushed after the template is modified.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/record/rules/{id}

Table 10-31 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**.

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Parameter	Mandatory	Type	Description
id	Yes	String	Template ID, which is returned after the template is created.

Request Parameters

Table 10-32 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 10-33 Request body parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name.
app	Yes	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.

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Parameter	Mandatory	Type	Description
stream	Yes	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.
record_type	No	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	Yes	**DefaultRecordConfig** object	Default recording template.

Table 10-34 DefaultRecordConfig

Parameter	Mandatory	Type	Description
record_format	Yes	Array of strings	Recording format.
obs_addr	Yes	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	No	**HLSRecordConfig** object	HLS configuration rule.
flv_config	No	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	No	**MP4RecordConfig** object	MP4 configuration rule.

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Table 10-35 RecordObsFileAddr

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name.
location	Yes	String	ID of the region where the OBS bucket resides.
object	Yes	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-36 HLSRecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.
record_prefix	No	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}/{app}/{record_type}/{record_format}/{stream}{file_start_time}/{stream}{file_start_time}*.
record_ts_prefix	No	String	TS file name prefix. The default value is *{file_start_time_unix}{file_end_time_unix}{ts_sequence_number}*.
record_slice_duration	No	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10

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Parameter	Mandatory	Type	Description
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

Table 10-37 FLVRecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	No	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

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Table 10-38 MP4RecordConfig

Parameter	Mandatory	Type	Description
record_cycle	Yes	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	No	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	No	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Response Parameters

Status code: 200

Table 10-39 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 10-40 Response body parameters

Parameter	Type	Description
id	String	Rule ID, which is returned by the server. This parameter is not needed during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
stream	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.
record_type	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	**DefaultRecordConfig** object	Default recording template.
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Table 10-41 DefaultRecordConfig

Parameter	Type	Description
record_format	Array of strings	Recording format.

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Parameter	Type	Description
obs_addr	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	**HLSRecordConfig** object	HLS configuration rule.
flv_config	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	**MP4RecordConfig** object	MP4 configuration rule.

Table 10-42 RecordObsFileAddr

Parameter	Type	Description
bucket	String	OBS bucket name.
location	String	ID of the region where the OBS bucket resides.
object	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-43 HLSRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.
record_prefix	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}*/*{app}*/*{record_type}*/*{record_format}*/*{stream}*_*{file_start_time}*/*{stream}*_*{file_start_time}*.
record_ts_prefix	String	TS file name prefix. The default value is *{file_start_time_unix}*_*{file_end_time_unix}*_*{ts_sequence_number}*.

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Parameter	Type	Description
record_slice_duration	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10
record_max_duration_to_merge_file	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

Table 10-44 FLVRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

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Table 10-45 MP4RecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Status code: 400

Table 10-46 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-47 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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Example Requests

Modifies a recording rule.

```
PUT https://{endpoint}/v1/{project_id}/record/rule/e89b76xxxxxx3425ui80af501cdxxxxxx

{
  "publish_domain" : "publish.example.com",
  "app" : "live",
  "stream" : "*",
  "record_type" : "CONTINUOUS_RECORD",
  "default_record_config" : {
    "record_format" : [ "HLS", "FLV" ],
    "hls_config" : {
      "record_cycle" : 3600,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_type}/{record_format}/
{stream}_{file_start_time}/{file_start_time}",
      "record_ts_prefix" : "{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
      "record_slice_duration" : 10,
      "record_max_duration_to_merge_file" : 0
    },
    "flv_config" : {
      "record_cycle" : 9000,
      "record_prefix" : "Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/
{file_start_time}",
      "record_max_duration_to_merge_file" : 0
    },
    "obs_addr" : {
      "bucket" : "mybucket",
      "location" : "region1",
      "object" : "record/"
    }
  }
}
```

Example Responses

Status code: 400

Failed to modify the recording template.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Modifies a recording rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
```

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```
import java.util.ArrayList;

public class UpdateRecordRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateRecordRuleRequest request = new UpdateRecordRuleRequest();
        request.withId("{id}");
        RecordRuleRequest body = new RecordRuleRequest();
        FLVRecordConfig flvConfigDefaultRecordConfig = new FLVRecordConfig();
        flvConfigDefaultRecordConfig.withRecordCycle(9000)
            .withRecordPrefix("Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}")
            .withRecordMaxDurationToMergeFile(0);
        HLSRecordConfig hlsConfigDefaultRecordConfig = new HLSRecordConfig();
        hlsConfigDefaultRecordConfig.withRecordCycle(3600)
            .withRecordPrefix("Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}")
            .withRecordTsPrefix("{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}")
            .withRecordSliceDuration(10)
            .withRecordMaxDurationToMergeFile(0);
        RecordObsFileAddr obsAddrDefaultRecordConfig = new RecordObsFileAddr();
        obsAddrDefaultRecordConfig.withBucket("mybucket")
            .withLocation(RecordObsFileAddr.LocationEnum.fromValue("region1"))
            .withObject("record/");
        List<VideoFormatVar> listDefaultRecordConfigRecordFormat = new ArrayList<>();
        listDefaultRecordConfigRecordFormat.add(VideoFormatVar.fromValue("HLS"));
        listDefaultRecordConfigRecordFormat.add(VideoFormatVar.fromValue("FLV"));
        DefaultRecordConfig defaultRecordConfigbody = new DefaultRecordConfig();
        defaultRecordConfigbody.withRecordFormat(listDefaultRecordConfigRecordFormat)
            .withObsAddr(obsAddrDefaultRecordConfig)
            .withHlsConfig(hlsConfigDefaultRecordConfig)
            .withFlvConfig(flvConfigDefaultRecordConfig);
        body.withDefaultRecordConfig(defaultRecordConfigbody);
        body.withRecordType(RecordRuleRequest.RecordTypeEnum.fromValue("CONTINUOUS_RECORD"));
        body.withStream("*");
        body.withApp("live");
        body.withPublishDomain("publish.example.com");
        request.withBody(body);
        try {
            UpdateRecordRuleResponse response = client.updateRecordRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
```

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```
        }
    }
}
```

Python

Modifies a recording rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateRecordRuleRequest()
        request.id = "{id}"
        flvConfigDefaultRecordConfig = FLVRecordConfig(
            record_cycle=9000,
            record_prefix="Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}",
            record_max_duration_to_merge_file=0
        )
        hlsConfigDefaultRecordConfig = HLSRecordConfig(
            record_cycle=3600,
            record_prefix="Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}",
            record_ts_prefix="{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}",
            record_slice_duration=10,
            record_max_duration_to_merge_file=0
        )
        obsAddrDefaultRecordConfig = RecordObsFileAddr(
            bucket="mybucket",
            location="region1",
            object="record/"
        )
        listRecordFormatDefaultRecordConfig = [
            "HLS",
            "FLV"
        ]
        defaultRecordConfigbody = DefaultRecordConfig(
            record_format=listRecordFormatDefaultRecordConfig,
            obs_addr=obsAddrDefaultRecordConfig,
            hls_config=hlsConfigDefaultRecordConfig,
            flv_config=flvConfigDefaultRecordConfig
        )
        request.body = RecordRuleRequest(
            default_record_config=defaultRecordConfigbody,
            record_type="CONTINUOUS_RECORD",
            stream="*",
```

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```
            app="live",
            publish_domain="publish.example.com"
        )
        response = client.update_record_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifies a recording rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateRecordRuleRequest{}
    request.Id = "{id}"
    recordPrefixFlvConfig:= "Record/{publish_domain}/{app}/{record_format}/{stream}_{file_start_time}/{file_start_time}"
    recordMaxDurationToMergeFileFlvConfig:= int32(0)
    flvConfigDefaultRecordConfig := &model.FlvRecordConfig{
        RecordCycle: int32(9000),
        RecordPrefix: &recordPrefixFlvConfig,
        RecordMaxDurationToMergeFile: &recordMaxDurationToMergeFileFlvConfig,
    }
    recordPrefixHlsConfig:= "Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}"
    recordTsPrefixHlsConfig:= "{file_start_time_unix}-{file_end_time_unix}-{ts_sequence_number}"
    recordSliceDurationHlsConfig:= int32(10)
    recordMaxDurationToMergeFileHlsConfig:= int32(0)
    hlsConfigDefaultRecordConfig := &model.HlsRecordConfig{
        RecordCycle: int32(3600),
        RecordPrefix: &recordPrefixHlsConfig,
        RecordTsPrefix: &recordTsPrefixHlsConfig,
        RecordSliceDuration: &recordSliceDurationHlsConfig,
        RecordMaxDurationToMergeFile: &recordMaxDurationToMergeFileHlsConfig,
    }
```

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```
    obsAddrDefaultRecordConfig := &model.RecordObsFileAddr{
        Bucket: "mybucket",
        Location: model.GetRecordObsFileAddrLocationEnum().REGION1,
        Object: "record/",
    }
    var listRecordFormatDefaultRecordConfig = []model.VideoFormatVarRecordFormat{
        model.GetVideoFormatVarRecordFormatEnum().HLS,
        model.GetVideoFormatVarRecordFormatEnum().FLV,
    }
    defaultRecordConfigbody := &model.DefaultRecordConfig{
        RecordFormat: listRecordFormatDefaultRecordConfig,
        ObsAddr: obsAddrDefaultRecordConfig,
        HlsConfig: hlsConfigDefaultRecordConfig,
        FlvConfig: flvConfigDefaultRecordConfig,
    }
    recordTypeRecordRuleRequest:= model.GetRecordRuleRequestRecordTypeEnum().CONTINUOUS_RECORD
    request.Body = &model.RecordRuleRequest{
        DefaultRecordConfig: defaultRecordConfigbody,
        RecordType: &recordTypeRecordRuleRequest,
        Stream: "*",
        App: "live",
        PublishDomain: "publish.example.com",
    }
    response, err := client.UpdateRecordRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Recording template modified.
400	Failed to modify the recording template.

Error Codes

See **Error Codes**.

10.4 Deleting a Recording Template

Function

This API is used to delete a recording template.

Calling Method

For details, see **Calling APIs**.

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URI

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

Table 10-48 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**.
id	Yes	String	Template ID.

Request Parameters

Table 10-49 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.

Response Parameters

Status code: 204

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Table 10-50 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Status code: 400

Table 10-51 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-52 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 10-53 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 10-54 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Deletes a recording rule.

```
DELETE https://{endpoint}/v1/{project_id}/record/rule/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 400

Failed to delete the recording template.

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

Status code: 404

The record does not exist.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteRecordRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
```

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```
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteRecordRuleRequest request = new DeleteRecordRuleRequest();
        request.withId("{id}");
        try {
            DeleteRecordRuleResponse response = client.deleteRecordRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteRecordRuleRequest()
        request.id = "{id}"
        response = client.delete_record_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteRecordRuleRequest{}
    request.Id = "{id}"
    response, err := client.DeleteRecordRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Recording template deleted.
400	Failed to delete the recording template.
404	The record does not exist.

Error Codes

See **Error Codes**.

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10.5 Querying a Recording Template

Function

This API is used to query a recording template.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/record/rules/{id}

Table 10-55 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**.
id	Yes	String	Template ID.

Request Parameters

Table 10-56 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.

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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 10-57 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-58 Response body parameters

Parameter	Type	Description
id	String	Rule ID, which is returned by the server. This parameter is not needed during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
stream	String	Stream name. To match any stream, set this parameter to a wildcard character (*). Exact stream matching is preferred. If no stream is matched, all streams will be matched.

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Parameter	Type	Description
record_type	String	Recording type. The options are **CONTINUOUS_RECORD** and **COMMAND_RECORD**. The default value is **CONTINUOUS_RECORD**. • CONTINUOUS_RECORD: continuous recording. Recording is triggered when streams are pushed to the recording system. • COMMAND_RECORD: command-based recording. After streams are pushed to the recording system, you must **run commands** to start and stop stream recording.
default_record_config	**DefaultRecordConfig** object	Default recording template.
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Table 10-59 DefaultRecordConfig

Parameter	Type	Description
record_format	Array of strings	Recording format.
obs_addr	**RecordObsFileAddr** object	Details about the bucket for storing recordings.
hls_config	**HLSRecordConfig** object	HLS configuration rule.
flv_config	**FLVRecordConfig** object	FLV configuration rule.
mp4_config	**MP4RecordConfig** object	MP4 configuration rule.

Table 10-60 RecordObsFileAddr

Parameter	Type	Description
bucket	String	OBS bucket name.
location	String	ID of the region where the OBS bucket resides.

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Parameter	Type	Description
object	String	OBS object path, which complies with the OBS object definition. If this parameter is left empty, recordings will be saved to the root directory.

Table 10-61 HLSRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 12 hours (43,200 seconds). If the value is 0, the default value 6 hours (21,600 seconds) is used.
record_prefix	String	Path and file name prefix of an M3U8 file. The default value is **Record**/*{publish_domain}/{app}/{record_type}/{record_format}/{stream}{file_start_time}/{stream}{file_start_time}*.
record_ts_prefix	String	TS file name prefix. The default value is *{file_start_time_unix}{file_end_time_unix}{ts_sequence_number}*.
record_slice_duration	Integer	(Optional) TS slice duration for HLS recording. Value range: [2,60] Unit: second Default value: 10
record_max_duration_to_merge_file	Integer	Interval threshold for combining HLS chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. Unit: second Default value: 0 • **0**: A new file will be generated once the stream is interrupted. • **–1**: After the same stream is resumed, the recording will be saved in the previous file within 30 days.

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Table 10-62 FLVRecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of an FLV file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.
record_max_duration_to_merge_file	Integer	Interval threshold for combining FLV chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Table 10-63 MP4RecordConfig

Parameter	Type	Description
record_cycle	Integer	Duration of periodic recording. Unit: second. The value ranges from 1 minute (60 seconds) to 6 hours (21,600 seconds). If the value is **0**, the default value 2 hours (7,200 seconds) is used.
record_prefix	String	Path and file name prefix of the file. The default value is **Record/{publish_domain}/{app}/{record_type}/{record_format}/{stream}_{file_start_time}/{file_start_time}*.

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Parameter	Type	Description
record_max_duration_to_merge_file	Integer	Interval threshold for combining MP4 chunks. If the stream interruption duration exceeds this threshold, a new file will be generated. If the value is set to **0**, a new file will be generated once the stream is interrupted. Unit: second Default value: 0

Status code: 400

Table 10-64 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 10-65 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Queries recording rules.

```
GET https://{endpoint}/v1/{project_id}/record/rule/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "id" : "0f78cc406baad9ca3e1fd76656dea1ab",
  "publish_domain" : "publish.example.com",
  "app" : "live",
  "stream" : "*",
```

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```
  "record_type" : "CONTINUOUS_RECORD",
  "default_record_config" : {
    "record_format" : [ "MP4", "FLV" ],
    "obs_addr" : {
      "bucket" : "mybucket",
      "location" : "region1",
      "object" : "record/"
    },
    "hls_config" : {
      "record_cycle" : 0,
      "record_prefix" : "",
      "record_ts_prefix" : "",
      "record_slice_duration" : 0,
      "record_max_duration_to_merge_file" : 0
    },
    "flv_config" : {
      "record_cycle" : 3600,
      "record_prefix" : "Record/publish_domain/app/record_type/record_format/stream_file_start_time/
file_start_time",
      "record_max_duration_to_merge_file" : 0
    },
    "mp4_config" : {
      "record_cycle" : 900,
      "record_prefix" : "Record/publish_domain/app/record_type/record_format/stream_file_start_time/
file_start_time",
      "record_max_duration_to_merge_file" : 0
    }
  },
  "create_time" : "2020-05-20T02:13:49.062Z",
  "update_time" : "0001-01-01T00:00:00Z"
}
```


Status code: 400

Query failed.


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


SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowRecordRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

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```
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowRecordRuleRequest request = new ShowRecordRuleRequest();
        request.withId("{id}");
        try {
            ShowRecordRuleResponse response = client.showRecordRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowRecordRuleRequest()
        request.id = "{id}"
        response = client.show_record_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowRecordRuleRequest{}
    request.Id = "{id}"
    response, err := client.ShowRecordRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Query failed.

Error Codes

See **Error Codes**.

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10.6 Submitting a Recording Command

Function

This API is used to control the recording of a single stream in real time.

Constraints

Requests are valid only when the recording rule type is set to **COMMAND_RECORD**.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/record/control

Table 10-66 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**.

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Table 10-67 Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation. (After the command for stopping recording is delivered, the interval for delivering the command for starting recording for the same stream must be greater than 10 seconds.) Possible options: • START: Starts recording a pushed stream. If stream interruption occurs and the interruption duration exceeds the threshold, the recording is stopped and will not be automatically started after stream push resumes. • STOP: Stops recording a specific stream.

Request Parameters

Table 10-68 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.

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

Table 10-69 Request body parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name.
app	Yes	String	Application name.
stream	Yes	String	Name of the stream whose recording is to be started or stopped.

Response Parameters

Status code: 200

Table 10-70 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* is the current timestamp, and *hostname* is the name of the server that processes the current request.)

Status code: 400

Table 10-71 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. The format is *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* is the current timestamp. *hostname* is the name of the server that processes the current request.)

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Table 10-72 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 10-73 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. The format is *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* is the current timestamp. *hostname* is the name of the server that processes the current request.)

Table 10-74 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Creates a recording control command.

```
POST https://{endpoint}/v1/{project_id}/record/control?action=START

{
  "publish_domain" : "publish.example.com",
  "app" : "live",
  "stream" : "mystream"
}
```

Example Responses

Status code: 400

Operation failed.

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

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

Status code: 404

The record does not exist.

```
{
  "error_code" : "LIVE.100011001",
  "error_msg" : "The resource to access is not exists"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Creates a recording control command.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class RunRecordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        RunRecordRequest request = new RunRecordRequest();
        RecordControlInfo body = new RecordControlInfo();
        body.withStream("mystream");
        body.withApp("live");
        body.withPublishDomain("publish.example.com");
        request.withBody(body);
        try {
            RunRecordResponse response = client.runRecord(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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```
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creates a recording control command.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RunRecordRequest()
        request.body = RecordControlInfo(
            stream="mystream",
            app="live",
            publish_domain="publish.example.com"
        )
        response = client.run_record(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates a recording control command.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
```

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```
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RunRecordRequest{}
    request.Body = &model.RecordControlInfo{
        Stream: "mystream",
        App: "live",
        PublishDomain: "publish.example.com",
    }
    response, err := client.RunRecord(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Operation succeeded.
400	Operation failed.
404	The record does not exist.

Error Codes

See **Error Codes**.

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10.7 Creating a Video Recording Index

Function

A recording index is a TS file recorded in HLS video streams. A new M3U8 file is generated based on the specified time range.

Constraints

In the recording configuration, the recording format must contain HLS, and the **record_ts_prefix** parameter must be set to the default value **{file_start_time_unix}*{file_end_time_unix}*{ts_sequence_number}**. There must be streams that are successfully pushed in the requested time range. The recording files involved in the same request must be in the same OBS bucket. A recording index can be created only when its start time is within 30 days later than the current time. If the duration of the request time segment is shorter than the TS segment duration in the HLS recording configuration, the TS segment that overlaps the request time segment is returned and the TS file is not tailored. If the interval between the request time and the start time in the request is less than the duration of a TS segment, the request may fail because the TS segment recording is not complete.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/record/indexes

Table 10-75 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**.

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Request Parameters

Table 10-76 Request header parameters

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

Table 10-77 Request body parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name
app	Yes	String	App name
stream	Yes	String	Stream name
start_time	Yes	DateTime	Start time. The format is YYYY-MM-DDTHH:mm:ssZ (UTC time). The maximum interval between the start time and end time is 12 hours. The start time cannot be later than the current time.
end_time	Yes	DateTime	End time. The format is YYYY-MM-DDTHH:mm:ssZ (UTC time). The maximum interval between the start time and end time is 12 hours. The start time must be earlier than the end time.

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Parameter	Mandatory	Type	Description
object	No	String	Path for storing M3U8 files in an OBS bucket. The following strings can be escaped: - {publish_domain} - {app} - {stream} - {start_time} - {end_time} - {start_time_unix} - {end_time_unix}, where {start_time}, {end_time}, {start_time_unix}, and {end_time_unix} indicate the actual time when the result is returned. The default value is **Index/{publish_domain}/{app}/{stream}/{stream}-{start_time}-{end_time}**.

Response Parameters

Status code: 201

Table 10-78 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* is the current timestamp, and *hostname* is the name of the server that processes the current request.)

Table 10-79 Response body parameters

Parameter	Type	Description
index_url	String	Index file address
publish_domain	String	Ingest domain name
app	String	App name
stream	String	Stream name
start_time	DateTime	Start time. The format is yyyy-MM-ddTHH:mm:ssZ (UTC time). (Actual video start time)

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Parameter	Type	Description
end_time	DateTime	End time. The format is yyyy-MM-ddTHH:mm:ssZ (UTC time). (Actual video end time)
duration	Integer	Recording duration Unit: second
width	Integer	Video width.
height	Integer	Video height
location	String	ID of the region where the OBS bucket resides
bucket	String	Bucket name
object	String	M3U8 file path, which defaults to **Index/{publish_domain}/{app}/{stream}-{start_time}-{end_time}**

Status code: 400

Table 10-80 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* is the current timestamp, and *hostname* is the name of the server that processes the current request.)

Table 10-81 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Creates a video recording index.

```
POST https://{endpoint}/v1/{project_id}/record/indexes

{
```

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```
  "publish_domain" : "push.example.com",
  "app" : "live",
  "stream" : "index",
  "start_time" : "2022-07-25T16:20:00+08:00",
  "end_time" : "2022-07-25T16:30:00+08:00",
  "object" : "Index/{publish_domain}/{app}/{stream}/{stream}-{start_time}-{end_time}"
}
```

Example Responses

Status code: 201

Creation of the video recording index succeeded.

```
{
  "index_url" : "http://obs***.com/push.test.com/live/stream01-20220901000000-20220901001000.m3u8",
  "duration" : 600,
  "height" : 1080,
  "width" : 720,
  "publish_domain" : "push.test.com",
  "app" : "live",
  "stream" : "stream01",
  "start_time" : "2022-09-01T00:00:00Z",
  "end_time" : "2022-09-01T00:10:00Z",
  "bucket" : "obs_bucket_name",
  "location" : "cn-north-5",
  "object" : "push.test.com/live/stream01-20220901000000-20220901001000.m3u8"
}
```

Status code: 400

Create a video recording index failed. Common errors:

- illegal time range: The request time range is incorrect. Check the **start_time** and **end_time**.
- no record info found: No recording task is found in the request time segment. The possible cause is that no livestream is successfully pushed in the time segment or command recording is not started under the command recording rule.
- no ts info found: No TS file is found in the request time segment. The possible cause is that stream interruption occurs in the request time segment or the TS segment recording is not complete when the request is sent.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Creates a video recording index.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

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```
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.time.OffsetDateTime;
import java.time.format.DateTimeFormatter;

public class CreateRecordIndexSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateRecordIndexRequest request = new CreateRecordIndexRequest();
        RecordIndexRequestBody body = new RecordIndexRequestBody();
        body.withObject("Index/{publish_domain}/{app}/{stream}/{stream}-{start_time}-{end_time}");
        body.withEndTime(OffsetDateTime.parse("2022-07-25T16:30:00+08:00", DateTimeFormatter.ISO_OFFSET_DATE_TIME));
        body.withStartTime(OffsetDateTime.parse("2022-07-25T16:20:00+08:00", DateTimeFormatter.ISO_OFFSET_DATE_TIME));
        body.withStream("index");
        body.withApp("live");
        body.withPublishDomain("push.example.com");
        request.withBody(body);
        try {
            CreateRecordIndexResponse response = client.createRecordIndex(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creates a video recording index.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
```

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```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateRecordIndexRequest()
        request.body = RecordIndexRequestBody(
            object="Index/{publish_domain}/{app}/{stream}/{stream}-{start_time}-{end_time}",
            end_time="2022-07-25T16:30:00+08:00",
            start_time="2022-07-25T16:20:00+08:00",
            stream="index",
            app="live",
            publish_domain="push.example.com"
        )
        response = client.create_record_index(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates a video recording index.

```
package main

import (
    "fmt"
    "time"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/sdktime"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```

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```
        WithCredential(auth).
        Build())

    request := &model.CreateRecordIndexRequest{}
    objectRecordIndexRequestBody:= "Index/{publish_domain}/{app}/{stream}/{stream}-{start_time}-
{end_time}"
    dateTimeEndTime, _ := time.ParseInLocation("2006-01-02T15:04:05Z", "2022-07-25T16:30:00+08:00",
time.UTC)
    sdkTimeEndTime := sdktime.SdkTime(dateTimeEndTime)
    dateTimeStartTime, _ := time.ParseInLocation("2006-01-02T15:04:05Z", "2022-07-25T16:20:00+08:00",
time.UTC)
    sdkTimeStartTime := sdktime.SdkTime(dateTimeStartTime)
    request.Body = &model.RecordIndexRequestBody{
        Object: &objectRecordIndexRequestBody,
        EndTime: &sdkTimeEndTime,
        StartTime: &sdkTimeStartTime,
        Stream: "index",
        App: "live",
        PublishDomain: "push.example.com",
    }
    response, err := client.CreateRecordIndex(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Creation of the video recording index succeeded.
400	Create a video recording index failed. Common errors: • illegal time range: The request time range is incorrect. Check the **start_time** and **end_time**. • no record info found: No recording task is found in the request time segment. The possible cause is that no livestream is successfully pushed in the time segment or command recording is not started under the command recording rule. • no ts info found: No TS file is found in the request time segment. The possible cause is that stream interruption occurs in the request time segment or the TS segment recording is not complete when the request is sent.

Error Codes

See **Error Codes**.

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11 Recording Callback Management

11.1 Creating a Recording Callback

Function

This API is used to create a recording callback.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/record/callbacks

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**.

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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
publish_domain	Yes	String	Ingest domain name.
app	Yes	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	No	String	Callback URL for sending recording notifications.

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Parameter	Mandatory	Type	Description
notify_event_subscription	No	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	No	String	Encryption type. The options are as follows: • HMACSHA256 • MD5 If this parameter is not specified, the default value **HMACSHA256** is used.
key	No	String	Callback key, which is used for authentication. Set this parameter to maintain user data security.

Response Parameters

Status code: 201

Table 11-4 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 11-5 Response body parameters

Parameter	Type	Description
id	String	Recording callback ID, which is returned by the server. This parameter does not need to be carried during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	String	Callback URL for sending recording notifications.
notify_event_subscription	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	String	Encryption type. The options are as follows: • HMACSHA256 • MD5
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Status code: 400

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Table 11-6 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-7 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Creates a recording callback configuration.

```
POST https://{endpoint}/v1/{project_id}/record/callbacks

{
  "publish_domain" : "publish.example.com",
  "app" : "*",
  "notify_callback_url" : "https://mycallback.com.cn/record_notify",
  "notify_event_subscription" : [ "RECORD_FILE_COMPLETE" ]
}
```

Example Responses

Status code: 400

Failed to create the recording callback.

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

SDK Sample Code

The SDK sample code is as follows.

Java

Creates a recording callback configuration.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```

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```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateRecordCallbackConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateRecordCallbackConfigRequest request = new CreateRecordCallbackConfigRequest();
        RecordCallbackConfigRequest body = new RecordCallbackConfigRequest();
        List<RecordCallbackConfigRequest.NotifyEventSubscriptionEnum> listbodyNotifyEventSubscription = new ArrayList<>();

listbodyNotifyEventSubscription.add(RecordCallbackConfigRequest.NotifyEventSubscriptionEnum.fromValue("RECORD_FILE_COMPLETE"));
        body.withNotifyEventSubscription(listbodyNotifyEventSubscription);
        body.withNotifyCallbackUrl("https://mycallback.com.cn/record_notify");
        body.withApp("*");
        body.withPublishDomain("publish.example.com");
        request.withBody(body);
        try {
            CreateRecordCallbackConfigResponse response = client.createRecordCallbackConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creates a recording callback configuration.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateRecordCallbackConfigRequest()
        listNotifyEventSubscriptionbody = [
            "RECORD_FILE_COMPLETE"
        ]
        request.body = RecordCallbackConfigRequest(
            notify_event_subscription=listNotifyEventSubscriptionbody,
            notify_callback_url="https://mycallback.com.cn/record_notify",
            app="*",
            publish_domain="publish.example.com"
        )
        response = client.create_record_callback_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates a recording callback configuration.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

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```
    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateRecordCallbackConfigRequest{}
    var listNotifyEventSubscriptionbody = []model.RecordCallbackConfigRequestNotifyEventSubscription{
        model.GetRecordCallbackConfigRequestNotifyEventSubscriptionEnum().RECORD_FILE_COMPLETE,
    }
    notifyCallbackUrlRecordCallbackConfigRequest:= "https://mycallback.com.cn/record_notify"
    request.Body = &model.RecordCallbackConfigRequest{
        NotifyEventSubscription: &listNotifyEventSubscriptionbody,
        NotifyCallbackUrl: &notifyCallbackUrlRecordCallbackConfigRequest,
        App: "*",
        PublishDomain: "publish.example.com",
    }
    response, err := client.CreateRecordCallbackConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Recording callback created.
400	Failed to create the recording callback.

Error Codes

See **Error Codes**.

11.2 Querying the List of Recording Callbacks

Function

This API is used to query the list of recording callbacks that meet specific conditions.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v1/{project_id}/record/callbacks

Table 11-8 Path Parameters

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

Table 11-9 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	No	String	Ingest domain name.
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**.

Request Parameters

Table 11-10 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.

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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 11-11 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-12 Response body parameters

Parameter	Type	Description
total	Integer	Total number of elements in the query result.
callback_config	Array of **RecordCallbackConfig** objects	Recording callback configuration list.

Table 11-13 RecordCallbackConfig

Parameter	Type	Description
id	String	Recording callback ID, which is returned by the server. This parameter does not need to be carried during creation or modification.
publish_domain	String	Ingest domain name.

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Parameter	Type	Description
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	String	Callback URL for sending recording notifications.
notify_event_subscription	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	String	Encryption type. The options are as follows: • HMACSHA256 • MD5
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Status code: 400

Table 11-14 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

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Table 11-15 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Queries recording callback configurations.

```
GET https://{endpoint}/v1/{project_id}/record/callbacks?publish_domain=publish.example.com
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "total" : 1,
  "callback_config" : [ {
    "id" : "e2fe84def7e476651034ec4b9e92bc30",
    "publish_domain" : "publish.example.com",
    "app" : "*",
    "notify_callback_url" : "http://100.95.129.234:8456/base_record_notify",
    "notify_event_subscription" : [ "RECORD_FILE_COMPLETE", "RECORD_NEW_FILE_START" ],
    "create_time" : "2020-03-02T08:59:45Z",
    "update_time" : "2020-03-09T08:59:45Z"
  } ]
}
```

Status code: 400

Query failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListRecordCallbackConfigsSolution {
```

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```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListRecordCallbackConfigsRequest request = new ListRecordCallbackConfigsRequest();
        try {
            ListRecordCallbackConfigsResponse response = client.listRecordCallbackConfigs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListRecordCallbackConfigsRequest()
        response = client.list_record_callback_configs(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

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```
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListRecordCallbackConfigsRequest{}
    response, err := client.ListRecordCallbackConfigs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Query failed.

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Error Codes

See **Error Codes**.

11.3 Modifying a Recording Callback

Function

This API is used to modify a recording callback.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/record/callbacks/{id}

Table 11-16 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**.
id	Yes	String	Recording callback ID, which was returned after the callback was created.

Request Parameters

Table 11-17 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.

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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 11-18 Request body parameters

Parameter	Mandatory	Type	Description
publish_domain	Yes	String	Ingest domain name.
app	Yes	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	No	String	Callback URL for sending recording notifications.
notify_event_subscription	No	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	No	String	Encryption type. The options are as follows: • HMACSHA256 • MD5 If this parameter is not specified, the default value **HMACSHA256** is used.
key	No	String	Callback key, which is used for authentication. Set this parameter to maintain user data security.

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Response Parameters

Status code: 200

Table 11-19 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-20 Response body parameters

Parameter	Type	Description
id	String	Recording callback ID, which is returned by the server. This parameter does not need to be carried during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	String	Callback URL for sending recording notifications.
notify_event_subscription	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	String	Encryption type. The options are as follows: • HMACSHA256 • MD5
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

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Parameter	Type	Description
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

Status code: 400

Table 11-21 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-22 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Modifies a recording callback configuration.

```
PUT https://{endpoint}/v1/{project_id}/record/callback/e89b76xxxxxx3425ui80af501cdxxxxxx

{
  "publish_domain" : "publish.example.com",
  "app" : "*",
  "notify_callback_url" : "https://mycallback.com.cn/record_notify",
  "notify_event_subscription" : [ "RECORD_FILE_COMPLETE" ]
}
```

Example Responses

Status code: 400

Failed to create the recording callback.

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

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SDK Sample Code

The SDK sample code is as follows.

Java

Modifies a recording callback configuration.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateRecordCallbackConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateRecordCallbackConfigRequest request = new UpdateRecordCallbackConfigRequest();
        request.withId("{id}");
        RecordCallbackConfigRequest body = new RecordCallbackConfigRequest();
        List<RecordCallbackConfigRequest.NotifyEventSubscriptionEnum> listbodyNotifyEventSubscription = new ArrayList<>();

listbodyNotifyEventSubscription.add(RecordCallbackConfigRequest.NotifyEventSubscriptionEnum.fromValue("RECORD_FILE_COMPLETE"));
        body.withNotifyEventSubscription(listbodyNotifyEventSubscription);
        body.withNotifyCallbackUrl("https://mycallback.com.cn/record_notify");
        body.withApp("*");
        body.withPublishDomain("publish.example.com");
        request.withBody(body);
        try {
            UpdateRecordCallbackConfigResponse response = client.updateRecordCallbackConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
```

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```
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies a recording callback configuration.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateRecordCallbackConfigRequest()
        request.id = "{id}"
        listNotifyEventSubscriptionbody = [
            "RECORD_FILE_COMPLETE"
        ]
        request.body = RecordCallbackConfigRequest(
            notify_event_subscription=listNotifyEventSubscriptionbody,
            notify_callback_url="https://mycallback.com.cn/record_notify",
            app="*",
            publish_domain="publish.example.com"
        )
        response = client.update_record_callback_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifies a recording callback configuration.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)
```

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```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateRecordCallbackConfigRequest{}
    request.Id = "{id}"
    var listNotifyEventSubscriptionbody = []model.RecordCallbackConfigRequestNotifyEventSubscription{
        model.GetRecordCallbackConfigRequestNotifyEventSubscriptionEnum().RECORD_FILE_COMPLETE,
    }
    notifyCallbackUrlRecordCallbackConfigRequest:= "https://mycallback.com.cn/record_notify"
    request.Body = &model.RecordCallbackConfigRequest{
        NotifyEventSubscription: &listNotifyEventSubscriptionbody,
        NotifyCallbackUrl: &notifyCallbackUrlRecordCallbackConfigRequest,
        App: "*",
        PublishDomain: "publish.example.com",
    }
    response, err := client.UpdateRecordCallbackConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Recording callback modified.
400	Failed to create the recording callback.

Error Codes

See **Error Codes**.

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11.4 Querying a Recording Callback

Function

This API is used to query details about a recording callback.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/record/callbacks/{id}

Table 11-23 Path Parameters

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

Request Parameters

Table 11-24 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.

Response Parameters

Status code: 200

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Table 11-25 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-26 Response body parameters

Parameter	Type	Description
id	String	Recording callback ID, which is returned by the server. This parameter does not need to be carried during creation or modification.
publish_domain	String	Ingest domain name.
app	String	Application name. To match any application, set this parameter to a wildcard character (*). Exact application matching is preferred. If no application is matched, all applications will be matched.
notify_callback_url	String	Callback URL for sending recording notifications.
notify_event_subscription	Array of strings	Type of recording notifications. **RECORD_NEW_FILE_START**: Recording started. **RECORD_FILE_COMPLETE**: Recording file generated. **RECORD_OVER**: Recording completed. **RECORD_FAILED**: Recording failed. The default value is **RECORD_FILE_COMPLETE**.
sign_type	String	Encryption type. The options are as follows: • HMACSHA256 • MD5
create_time	Date	Creation time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).
update_time	Date	Modification time in the format of yyyy-mm-ddThh:mm:ssZ (UTC time).

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Status code: 404

Table 11-27 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-28 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Queries a recording callback configuration.

```
GET https://{endpoint}/v1/{project_id}/record/callback/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "id" : "e2fe84def7e476651034ec4b9e92bc30",
  "publish_domain" : "publish.example.com",
  "app" : "*",
  "notify_callback_url" : "http://100.95.129.234:8456/base_record_notify",
  "notify_event_subscription" : [ "RECORD_FILE_COMPLETE", "RECORD_NEW_FILE_START" ],
  "create_time" : "2020-03-02T08:59:45Z",
  "update_time" : "2020-03-09T08:59:45Z"
}
```

Status code: 404

The record does not exist.

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

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowRecordCallbackConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowRecordCallbackConfigRequest request = new ShowRecordCallbackConfigRequest();
        request.withId("{id}");
        try {
            ShowRecordCallbackConfigResponse response = client.showRecordCallbackConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

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```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowRecordCallbackConfigRequest()
        request.id = "{id}"
        response = client.show_record_callback_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowRecordCallbackConfigRequest{}
    request.Id = "{id}"
    response, err := client.ShowRecordCallbackConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
404	The record does not exist.

Error Codes

See **Error Codes**.

11.5 Deleting a Recording Callback

Function

This API is used to delete a recording callback.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/record/callbacks/{id}

Table 11-29 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	Recording callback ID.

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Request Parameters

Table 11-30 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 11-31 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Status code: 400

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Table 11-32 Response header parameters

Parameter	Type	Description
X-request-id	String	Request ID for task tracing. Format: *request_id-timestamp-hostname*. (*request_id* is the UUID generated on the server. *timestamp* indicates the current timestamp, and *hostname* is the name of the server that processes the current API.)

Table 11-33 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Example Requests

Deletes a recording callback configuration.

```
DELETE https://{endpoint}/v1/{project_id}/record/callback/e89b76xxxxxx3425ui80af501cdxxxxxx
```

Example Responses

Status code: 400

Failed to delete the recording callback.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteRecordCallbackConfigSolution {
```

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```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteRecordCallbackConfigRequest request = new DeleteRecordCallbackConfigRequest();
        request.withId("{id}");
        try {
            DeleteRecordCallbackConfigResponse response = client.deleteRecordCallbackConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteRecordCallbackConfigRequest()
        request.id = "{id}"
```

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```
        response = client.delete_record_callback_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteRecordCallbackConfigRequest{}
    request.Id = "{id}"
    response, err := client.DeleteRecordCallbackConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Recording callback deleted.
400	Failed to delete the recording callback.

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Error Codes

See **Error Codes**.

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12 HTTPS Certificate Management

12.1 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**.

URI

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

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**.

Table 12-2 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

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Request Parameters

Table 12-3 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 12-4 Request body parameters

Parameter	Mandatory	Type	Description
certificate_format	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.

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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 12-5 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 12-6 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).

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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 12-7 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 401

Table 12-8 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

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Table 12-9 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

Table 12-10 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.

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```
{
  "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modifies the HTTPS certificate configuration of a specified domain name.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateDomainHttpsCertSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDomainHttpsCertRequest request = new UpdateDomainHttpsCertRequest();
        DomainHttpsCertInfo body = new DomainHttpsCertInfo();
        body.withForceRedirect(true);
        body.withCertificateKey("your cert key");
        body.withCertificate("your cert");
        body.withCertificateFormat(DomainHttpsCertInfo.CertificateFormatEnum.fromValue("PEM"));
        request.withBody(body);
        try {
            UpdateDomainHttpsCertResponse response = client.updateDomainHttpsCert(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
```

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```
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies the HTTPS certificate configuration of a specified domain name.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDomainHttpsCertRequest()
        request.body = DomainHttpsCertInfo(
            force_redirect=True,
            certificate_key="your cert key",
            certificate="your cert",
            certificate_format="PEM"
        )
        response = client.update_domain_https_cert(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifies the HTTPS certificate configuration of a specified domain name.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
```

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```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDomainHttpsCertRequest{}
    forceRedirectDomainHttpsCertInfo:= true
    certificateKeyDomainHttpsCertInfo:= "your cert key"
    certificateDomainHttpsCertInfo:= "your cert"
    certificateFormatDomainHttpsCertInfo:= model.GetDomainHttpsCertInfoCertificateFormatEnum().PEM
    request.Body = &model.DomainHttpsCertInfo{
        ForceRedirect: &forceRedirectDomainHttpsCertInfo,
        CertificateKey: &certificateKeyDomainHttpsCertInfo,
        Certificate: &certificateDomainHttpsCertInfo,
        CertificateFormat: &certificateFormatDomainHttpsCertInfo,
    }
    response, err := client.UpdateDomainHttpsCert(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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.

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Status Code	Description
500	Internal service error

Error Codes

See **Error Codes**.

12.2 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**.

URI

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

Table 12-11 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 12-12 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

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Request Parameters

Table 12-13 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: 200

Table 12-14 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.

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Parameter	Type	Description
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 12-15 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 12-16 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**.

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Parameter	Type	Description
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 12-17 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 401

Table 12-18 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 12-19 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

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Table 12-20 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

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowDomainHttpsCertSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowDomainHttpsCertRequest request = new ShowDomainHttpsCertRequest();
        try {
            ShowDomainHttpsCertResponse response = client.showDomainHttpsCert(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
```

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```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowDomainHttpsCertRequest()
        response = client.show_domain_https_cert(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowDomainHttpsCertRequest{}
    response, err := client.ShowDomainHttpsCert(request)
    if err == nil {
```

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```
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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.
500	Internal service error

Error Codes

See **Error Codes**.

12.3 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**.

URI

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

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Table 12-21 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**.

Table 12-22 Query Parameters

Parameter	Mandatory	Type	Description
domain	Yes	String	Streaming domain name

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.

Response Parameters

Status code: 204

Deleted.

Status code: 400

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Table 12-24 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 401

Table 12-25 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 12-26 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 500

Table 12-27 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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteDomainHttpsCertSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

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```
        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteDomainHttpsCertRequest request = new DeleteDomainHttpsCertRequest();
        try {
            DeleteDomainHttpsCertResponse response = client.deleteDomainHttpsCert(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainHttpsCertRequest()
        response = client.delete_domain_https_cert(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
```

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```
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainHttpsCertRequest{}
    response, err := client.DeleteDomainHttpsCert(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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

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Error Codes

See **Error Codes**.

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13 OBS Bucket Management

13.1 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**.

URI

PUT /v1/{project_id}/obs/authority

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**.

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Request Parameters

Table 13-2 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 13-3 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

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Table 13-4 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

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

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class UpdateObsBucketAuthorityPublicSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

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```
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateObsBucketAuthorityPublicRequest request = new UpdateObsBucketAuthorityPublicRequest();
        ObsAuthorityConfigV2 body = new ObsAuthorityConfigV2();
        body.withOperation(1);
        body.withBucket("video-test02");
        request.withBody(body);
        try {
            UpdateObsBucketAuthorityPublicResponse response =
client.updateObsBucketAuthorityPublic(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

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

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateObsBucketAuthorityPublicRequest()
        request.body = ObsAuthorityConfigV2(
            operation=1,
```

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```
            bucket="video-test02"
        )
        response = client.update_obs_bucket_authority_public(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateObsBucketAuthorityPublicRequest{}
    request.Body = &model.ObsAuthorityConfigV2{
        Operation: int32(1),
        Bucket: "video-test02",
    }
    response, err := client.UpdateObsBucketAuthorityPublic(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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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**.

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14 Livestreaming Watermark Management

14.1 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**.

URI

POST /v1/{project_id}/watermark/templates

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**.

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Request Parameters

Table 14-2 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 14-3 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.

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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

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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 (cannot be modified)

Table 14-4 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.]

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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 14-5 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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: 201

Table 14-6 Response header parameters

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

Table 14-7 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

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Parameter	Type	Description
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.
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

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Parameter	Type	Description
text	**WordWaterMarkInfo** object	Text watermark information
scene	String	Service attribute. **cloud_live**: Cloud Live (default); **media_live**: Media Live (cannot be modified)

Table 14-8 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.]
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.

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Table 14-9 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-10 Response header parameters

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

Table 14-11 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

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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**.

14.2 Querying Watermark Templates

Function

Queries watermark templates that meet the specified criteria.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/watermark/templates

Table 14-12 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 14-13 Query Parameters

Parameter	Mandatory	Type	Description
name	No	String	Watermark template name

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

Request Parameters

Table 14-14 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

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Table 14-15 Response header parameters

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

Table 14-16 Response body parameters

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

Table 14-17 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.

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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 (cannot be modified)

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Table 14-18 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.]
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.

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Table 14-19 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-20 Response header parameters

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

Table 14-21 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"
}
```

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Status Codes

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

Error Codes

See **Error Codes**.

14.3 Modifying a Watermark Template

Function

Modifies a watermark template. The modification takes effect immediately.

Calling Method

For details, see **Calling APIs**.

URI

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

Table 14-22 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.

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Request Parameters

Table 14-23 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 14-24 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.

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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

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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 (cannot be modified)

Table 14-25 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.]

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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 14-26 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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 14-27 Response header parameters

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

Table 14-28 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

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Parameter	Type	Description
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.
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

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Parameter	Type	Description
text	**WordWaterMarkInfo** object	Text watermark information
scene	String	Service attribute. **cloud_live**: Cloud Live (default); **media_live**: Media Live (cannot be modified)

Table 14-29 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.

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Table 14-30 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-31 Response header parameters

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

Table 14-32 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

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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**.

14.4 Deleting a Watermark Template

Function

API for Deleting a Watermark Template

Calling Method

For details, see **Calling APIs**.

URI

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

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**.
id	Yes	String	Template ID

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Request Parameters

Table 14-34 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 14-35 Response header parameters

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

Status code: 400

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Table 14-36 Response header parameters

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

Table 14-37 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 14-38 Response header parameters

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

Table 14-39 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
```

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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**.

14.5 Querying Watermark Template Configurations

Function

API for Querying Watermark Template Details

Calling Method

For details, see **Calling APIs**.

URI

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

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Table 14-40 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 14-41 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

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Table 14-42 Response header parameters

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

Table 14-43 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.

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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 (cannot be modified)

Table 14-44 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.]
font_size	Integer	Font size

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Parameter	Type	Description
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 14-45 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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 14-46 Response header parameters

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

Table 14-47 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,
```

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```
  "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**.

14.6 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**.

URI

POST /v1/{project_id}/watermark/rules

Table 14-48 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**.

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Request Parameters

Table 14-49 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 14-50 Request body parameters

Parameter	Mandatory	Type	Description
rule_name	No	String	Watermark rule name
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

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Parameter	Mandatory	Type	Description
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 14-51 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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: 201

Table 14-52 Response header parameters

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

Table 14-53 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name
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.

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Parameter	Type	Description
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 14-54 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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 14-55 Response header parameters

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

Table 14-56 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
```

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```
  }
}
```

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**.

14.7 Querying Watermark Rules

Function

Queries watermark rules that meet the specified criteria.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/watermark/rules

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Table 14-57 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 14-58 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 14-59 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.

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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 14-60 Response header parameters

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

Table 14-61 Response body parameters

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

Table 14-62 WatermarkRule

Parameter	Type	Description
rule_name	String	Watermark rule name
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

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Parameter	Type	Description
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 14-63 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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.

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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 14-64 Response header parameters

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

Table 14-65 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" : [ {
```

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```
    "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**.

14.8 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**.

URI

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

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Table 14-66 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 14-67 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 14-68 Request body parameters

Parameter	Mandatory	Type	Description
rule_name	No	String	Watermark rule name
location	Yes	**WatermarkLocation** object	Watermark position

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Table 14-69 WatermarkLocation

Parameter	Mandatory	Type	Description
location	No	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-70 Response header parameters

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

Table 14-71 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name
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.

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Table 14-72 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-73 Response header parameters

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

Table 14-74 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",
```

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

Status Codes

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

Error Codes

See **Error Codes**.

14.9 Deleting a Watermark Rule

Function

API for Deleting a Watermark Rule

Calling Method

For details, see **Calling APIs**.

URI

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

Table 14-75 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

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Request Parameters

Table 14-76 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 14-77 Response header parameters

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

Status code: 400

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Table 14-78 Response header parameters

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

Table 14-79 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

Status code: 404

Table 14-80 Response header parameters

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

Table 14-81 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
```

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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**.

14.10 Querying Watermark Rule Configurations

Function

API for Querying Watermark Template Rules

Calling Method

For details, see **Calling APIs**.

URI

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

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Table 14-82 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 14-83 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.
X-Project-Id	No	String	Project ID. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

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Table 14-84 Response header parameters

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

Table 14-85 Response body parameters

Parameter	Type	Description
rule_name	String	Watermark rule name
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.

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Table 14-86 WatermarkLocation

Parameter	Type	Description
location	String	Watermark position. The options are **TOPLEFT** (upper left), **TOPRIGHT** (upper right), **BOTTOMLEFT** (lower left), **BOTTOMRIGHT** (lower right), and **RANDOM** (random). If **RANDOM** is used, the watermark will randomly appear on the upper left, upper right, lower left, or lower right of the video.
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

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Table 14-87 Response header parameters

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

Table 14-88 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"
}
```

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Status Codes

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

Error Codes

See **Error Codes**.

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15 Transcoding Template Management

15.1 Creating a Transcoding Template

Function

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

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/template/transcodings

Table 15-1 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**.

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Request Parameters

Table 15-2 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 15-3 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.

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Table 15-4 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	Customizes a template name. • To customize a template name, set **quality** to **userdefine**. • The name of each custom template must be unique. • The name of a custom template cannot be the same as the value of **quality** of 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**

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Parameter	Mandatory	Type	Description
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**.
width	No	Integer	Long side of the video. The landscape is a width, that is, a long side, and the portrait is a height. 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**

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Parameter	Mandatory	Type	Description
height	No	Integer	Short side of the video. The landscape is a width, and the portrait is a height, that is, a 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

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Parameter	Mandatory	Type	Description
iFrameInterval	No	Integer	Maximum I-frame interval. Unit: number of frames Value range: 0–500. Default value: **50**. Note: If you want to set the I-frame interval using **iFrameInterval**, set **gop** to **0** or do not set **gop**.
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**

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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 15-5 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",
```

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```
    "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

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.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateTranscodingsTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

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```
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

    LiveClient client = LiveClient.newBuilder()
            .withCredential(auth)
            .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
            .build();
    CreateTranscodingsTemplateRequest request = new CreateTranscodingsTemplateRequest();
    StreamTranscodingTemplate body = new StreamTranscodingTemplate();
    List<QualityInfo> listbodyQualityInfo = new ArrayList<>();
    listbodyQualityInfo.add(
        new QualityInfo()
            .withQuality("lsd")
            .withHdlb(QualityInfo.HdlbEnum.fromValue("off"))
            .withCodec(QualityInfo.CodecEnum.fromValue("H264"))
            .withWidth(1920)
            .withHeight(1080)
            .withBitrate(4500)
            .withVideoFrameRate(20)
            .withGop(4)
    );
    listbodyQualityInfo.add(
        new QualityInfo()
            .withTemplateName("yourTemplateName")
            .withQuality("userdefine")
            .withHdlb(QualityInfo.HdlbEnum.fromValue("off"))
            .withCodec(QualityInfo.CodecEnum.fromValue("H264"))
            .withWidth(1920)
            .withHeight(1080)
            .withBitrate(4500)
            .withVideoFrameRate(20)
            .withGop(4)
    );
    body.withQualityInfo(listbodyQualityInfo);
    body.withAppName("live");
    body.withDomain("play.example.com");
    request.withBody(body);
    try {
        CreateTranscodingsTemplateResponse response = client.createTranscodingsTemplate(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

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.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *
```

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```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateTranscodingsTemplateRequest()
        listQualityInfobody = [
            QualityInfo(
                quality="lsd",
                hdlb="off",
                codec="H264",
                width=1920,
                height=1080,
                bitrate=4500,
                video_frame_rate=20,
                gop=4
            ),
            QualityInfo(
                template_name="yourTemplateName",
                quality="userdefine",
                hdlb="off",
                codec="H264",
                width=1920,
                height=1080,
                bitrate=4500,
                video_frame_rate=20,
                gop=4
            )
        ]
        request.body = StreamTranscodingTemplate(
            quality_info=listQualityInfobody,
            app_name="live",
            domain="play.example.com"
        )
        response = client.create_transcodings_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
```

```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTranscodingsTemplateRequest{}
    hdlbQualityInfo:= model.GetQualityInfoHdlbEnum().OFF
    codecQualityInfo:= model.GetQualityInfoCodecEnum().H264
    widthQualityInfo:= int32(1920)
    heightQualityInfo:= int32(1080)
    videoFrameRateQualityInfo:= int32(20)
    gopQualityInfo:= int32(4)
    templateNameQualityInfo:= "yourTemplateName"
    hdlbQualityInfo1:= model.GetQualityInfoHdlbEnum().OFF
    codecQualityInfo1:= model.GetQualityInfoCodecEnum().H264
    widthQualityInfo1:= int32(1920)
    heightQualityInfo1:= int32(1080)
    videoFrameRateQualityInfo1:= int32(20)
    gopQualityInfo1:= int32(4)
    var listQualityInfobody = []model.QualityInfo{
        {
            Quality: "lsd",
            Hdlb: &hdlbQualityInfo,
            Codec: &codecQualityInfo,
            Width: &widthQualityInfo,
            Height: &heightQualityInfo,
            Bitrate: int32(4500),
            VideoFrameRate: &videoFrameRateQualityInfo,
            Gop: &gopQualityInfo,
        },
        {
            TemplateName: &templateNameQualityInfo,
            Quality: "userdefine",
            Hdlb: &hdlbQualityInfo1,
            Codec: &codecQualityInfo1,
            Width: &widthQualityInfo1,
            Height: &heightQualityInfo1,
            Bitrate: int32(4500),
            VideoFrameRate: &videoFrameRateQualityInfo1,
            Gop: &gopQualityInfo1,
        },
    }
    request.Body = &model.StreamTranscodingTemplate{
        QualityInfo: listQualityInfobody,
        AppName: "live",
        Domain: "play.example.com",
    }
    response, err := client.CreateTranscodingsTemplate(request)
```

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```
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

15.2 Deleting a Transcoding Template

Function

This API is used to delete a transcoding template.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/template/transcodings

Table 15-6 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**.

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Table 15-7 Query Parameters

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

Request Parameters

Table 15-8 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 15-9 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
error_msg	String	Error description

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class DeleteTranscodingsTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTranscodingsTemplateRequest request = new DeleteTranscodingsTemplateRequest();
        try {
            DeleteTranscodingsTemplateResponse response = client.deleteTranscodingsTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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```
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteTranscodingsTemplateRequest()
        response = client.delete_transcodings_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
```

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```
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTranscodingsTemplateRequest{}
    response, err := client.DeleteTranscodingsTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

15.3 Modifying a Transcoding Template

Function

This API is used to modify a transcoding template.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/template/transcodings

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Table 15-10 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 15-11 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 15-12 Request body parameters

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

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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 15-13 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.
templateName	No	String	Customizes a template name. • To customize a template name, set **quality** to **userdefine**. • The name of each custom template must be unique. • The name of a custom template cannot be the same as the value of **quality** of another template. • If **quality** is not set to **userdefine**, do not set this parameter.

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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**.

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Parameter	Mandatory	Type	Description
width	No	Integer	Long side of the video. The landscape is a width, that is, a long side, and the portrait is a height. 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**

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Parameter	Mandatory	Type	Description
height	No	Integer	Short side of the video. The landscape is a width, and the portrait is a height, that is, a 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

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Parameter	Mandatory	Type	Description
iFrameInterval	No	Integer	Maximum I-frame interval. Unit: number of frames Value range: 0–500. Default value: **50**. Note: If you want to set the I-frame interval using **iFrameInterval**, set **gop** to **0** or do not set **gop**.
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**

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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 15-14 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",
```

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```
    "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

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.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateTranscodingsTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

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```
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

    LiveClient client = LiveClient.newBuilder()
            .withCredential(auth)
            .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
            .build();
    UpdateTranscodingsTemplateRequest request = new UpdateTranscodingsTemplateRequest();
    StreamTranscodingTemplate body = new StreamTranscodingTemplate();
    List<QualityInfo> listbodyQualityInfo = new ArrayList<>();
    listbodyQualityInfo.add(
        new QualityInfo()
            .withQuality("lsd")
            .withHdlb(QualityInfo.HdlbEnum.fromValue("off"))
            .withCodec(QualityInfo.CodecEnum.fromValue("H264"))
            .withWidth(1920)
            .withHeight(1080)
            .withBitrate(4500)
            .withVideoFrameRate(20)
            .withGop(4)
    );
    listbodyQualityInfo.add(
        new QualityInfo()
            .withTemplateName("yourTemplateName")
            .withQuality("userdefine")
            .withHdlb(QualityInfo.HdlbEnum.fromValue("off"))
            .withCodec(QualityInfo.CodecEnum.fromValue("H264"))
            .withWidth(1920)
            .withHeight(1080)
            .withBitrate(4500)
            .withVideoFrameRate(20)
            .withGop(4)
    );
    body.withQualityInfo(listbodyQualityInfo);
    body.withAppName("live");
    body.withDomain("play.example.com");
    request.withBody(body);
    try {
        UpdateTranscodingsTemplateResponse response = client.updateTranscodingsTemplate(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

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.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *
```

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```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTranscodingsTemplateRequest()
        listQualityInfobody = [
            QualityInfo(
                quality="lsd",
                hdlb="off",
                codec="H264",
                width=1920,
                height=1080,
                bitrate=4500,
                video_frame_rate=20,
                gop=4
            ),
            QualityInfo(
                template_name="yourTemplateName",
                quality="userdefine",
                hdlb="off",
                codec="H264",
                width=1920,
                height=1080,
                bitrate=4500,
                video_frame_rate=20,
                gop=4
            )
        ]
        request.body = StreamTranscodingTemplate(
            quality_info=listQualityInfobody,
            app_name="live",
            domain="play.example.com"
        )
        response = client.update_transcodings_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

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.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
```

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```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTranscodingsTemplateRequest{}
    hdlbQualityInfo:= model.GetQualityInfoHdlbEnum().OFF
    codecQualityInfo:= model.GetQualityInfoCodecEnum().H264
    widthQualityInfo:= int32(1920)
    heightQualityInfo:= int32(1080)
    videoFrameRateQualityInfo:= int32(20)
    gopQualityInfo:= int32(4)
    templateNameQualityInfo:= "yourTemplateName"
    hdlbQualityInfo1:= model.GetQualityInfoHdlbEnum().OFF
    codecQualityInfo1:= model.GetQualityInfoCodecEnum().H264
    widthQualityInfo1:= int32(1920)
    heightQualityInfo1:= int32(1080)
    videoFrameRateQualityInfo1:= int32(20)
    gopQualityInfo1:= int32(4)
    var listQualityInfobody = []model.QualityInfo{
        {
            Quality: "lsd",
            Hdlb: &hdlbQualityInfo,
            Codec: &codecQualityInfo,
            Width: &widthQualityInfo,
            Height: &heightQualityInfo,
            Bitrate: int32(4500),
            VideoFrameRate: &videoFrameRateQualityInfo,
            Gop: &gopQualityInfo,
        },
        {
            TemplateName: &templateNameQualityInfo,
            Quality: "userdefine",
            Hdlb: &hdlbQualityInfo1,
            Codec: &codecQualityInfo1,
            Width: &widthQualityInfo1,
            Height: &heightQualityInfo1,
            Bitrate: int32(4500),
            VideoFrameRate: &videoFrameRateQualityInfo1,
            Gop: &gopQualityInfo1,
        },
    }
    request.Body = &model.StreamTranscodingTemplate{
        QualityInfo: listQualityInfobody,
        AppName: "live",
        Domain: "play.example.com",
    }
    response, err := client.UpdateTranscodingsTemplate(request)
```

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```
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

15.4 Querying Transcoding Templates

Function

This API is used to query transcoding templates.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/template/transcodings

Table 15-15 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**.

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Table 15-16 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 15-17 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

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Table 15-18 Response body parameters

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

Table 15-19 AppQualityInfo

Parameter	Type	Description
app_name	String	Application name.
quality_info	Array of **QualityInfo** objects	Video quality information.

Table 15-20 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	Customizes a template name. • To customize a template name, set **quality** to **userdefine**. • The name of each custom template must be unique. • The name of a custom template cannot be the same as the value of **quality** of another template. • If **quality** is not set to **userdefine**, do not set this parameter.

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Parameter	Type	Description
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**
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**.

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Parameter	Type	Description
width	Integer	Long side of the video. The landscape is a width, that is, a long side, and the portrait is a height. 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**
height	Integer	Short side of the video. The landscape is a width, and the portrait is a height, that is, a 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

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Parameter	Type	Description
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: If you want to set the I-frame interval using **iFrameInterval**, set **gop** to **0** or do not set **gop**.
gop	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	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**

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Parameter	Type	Description
i_frame_policy	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 15-21 Response body parameters

Parameter	Type	Description
error_code	String	Error Code
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,
```

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```
    "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ShowTranscodingsTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowTranscodingsTemplateRequest request = new ShowTranscodingsTemplateRequest();
        try {
            ShowTranscodingsTemplateResponse response = client.showTranscodingsTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

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```
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowTranscodingsTemplateRequest()
        response = client.show_transcodings_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

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```
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowTranscodingsTemplateRequest{}
    response, err := client.ShowTranscodingsTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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16 Stream Management

16.1 Disabling a Push Stream

Function

This API is used to disable a push stream.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/stream/blocks

Table 16-1 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**.

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Request Parameters

Table 16-2 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 16-3 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 *)
resume_time	No	DateTime	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

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Stream disabled successfully.

Status code: 400

Table 16-4 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Creates an attribute for forbidding stream push.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.time.OffsetDateTime;
import java.time.format.DateTimeFormatter;

public class CreateStreamForbiddenSolution {
```

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```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateStreamForbiddenRequest request = new CreateStreamForbiddenRequest();
        StreamForbiddenSetting body = new StreamForbiddenSetting();
        body.withResumeTime(OffsetDateTime.parse("2018-05-19T21:10:15Z", DateTimeFormatter.ISO_OFFSET_DATE_TIME));
        body.withStreamName("huawei");
        body.withAppName("live");
        body.withDomain("publish.example.huawei.com");
        request.withBody(body);
        try {
            CreateStreamForbiddenResponse response = client.createStreamForbidden(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creates an attribute for forbidding stream push.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
```

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```
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStreamForbiddenRequest()
        request.body = StreamForbiddenSetting(
            resume_time="2018-05-19T21:10:15Z",
            stream_name="huawei",
            app_name="live",
            domain="publish.example.huawei.com"
        )
        response = client.create_stream_forbidden(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creates an attribute for forbidding stream push.

```
package main

import (
    "fmt"
    "time"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/sdktime"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStreamForbiddenRequest{}
    dateTimeResumeTime, _ := time.ParseInLocation("2006-01-02T15:04:05Z", "2018-05-19T21:10:15Z", time.UTC)
    resumeTimeStreamForbiddenSetting:= sdktime.SdkTime(dateTimeResumeTime)
    request.Body = &model.StreamForbiddenSetting{
        ResumeTime: &resumeTimeStreamForbiddenSetting,
        StreamName: "huawei",
        AppName: "live",
        Domain: "publish.example.huawei.com",
    }
    response, err := client.CreateStreamForbidden(request)
```

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```
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

16.2 Querying Disabled Streams

Function

This API is used to query disabled streams.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/stream/blocks

Table 16-5 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**.

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Table 16-6 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 16-7 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.

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Response Parameters

Status code: 200

Table 16-8 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 16-9 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 16-10 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,
```

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```
 "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;


public class ListStreamForbiddenSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStreamForbiddenRequest request = new ListStreamForbiddenRequest();
        try {
            ListStreamForbiddenResponse response = client.listStreamForbidden(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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```
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStreamForbiddenRequest()
        response = client.list_stream_forbidden(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
```

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```
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStreamForbiddenRequest{}
    response, err := client.ListStreamForbidden(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

16.3 Resuming a Push Stream

Function

This API is used to resume a push stream.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/stream/blocks

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Table 16-11 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 16-12 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 16-13 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

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Stream resumed successfully.

Status code: 400

Table 16-14 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**.

16.4 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**.

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URI

PUT /v1/{project_id}/stream/blocks

Table 16-15 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 16-16 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 16-17 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 *)

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Parameter	Mandatory	Type	Description
resume_time	No	DateTime	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 16-18 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

Modifies the attribute for forbidding stream push.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v1.region.LiveRegion;
import com.huaweicloud.sdk.live.v1.*;
import com.huaweicloud.sdk.live.v1.model.*;

import java.time.OffsetDateTime;
import java.time.format.DateTimeFormatter;

public class UpdateStreamForbiddenSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateStreamForbiddenRequest request = new UpdateStreamForbiddenRequest();
        StreamForbiddenSetting body = new StreamForbiddenSetting();
        body.withResumeTime(OffsetDateTime.parse("2018-05-19T21:10:15Z", DateTimeFormatter.ISO_OFFSET_DATE_TIME));
        body.withStreamName("huawei");
        body.withAppName("live");
        body.withDomain("publish.example.huawei.com");
        request.withBody(body);
        try {
            UpdateStreamForbiddenResponse response = client.updateStreamForbidden(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifies the attribute for forbidding stream push.

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```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v1.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v1 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStreamForbiddenRequest()
        request.body = StreamForbiddenSetting(
            resume_time="2018-05-19T21:10:15Z",
            stream_name="huawei",
            app_name="live",
            domain="publish.example.huawei.com"
        )
        response = client.update_stream_forbidden(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifies the attribute for forbidding stream push.

```
package main

import (
    "fmt"
    "time"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/sdktime"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v1/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
```

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```
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStreamForbiddenRequest{}
    dateTimeResumeTime, _ := time.ParseInLocation("2006-01-02T15:04:05Z", "2018-05-19T21:10:15Z",
time.UTC)
    resumeTimeStreamForbiddenSetting:= sdktime.SdkTime(dateTimeResumeTime)
    request.Body = &model.StreamForbiddenSetting{
        ResumeTime: &resumeTimeStreamForbiddenSetting,
        StreamName: "huawei",
        AppName: "live",
        Domain: "publish.example.huawei.com",
    }
    response, err := client.UpdateStreamForbidden(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

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17 Statistics Analysis

17.1 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**.

URI

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

Table 17-1 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**.

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Table 17-2 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.
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.

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Parameter	Mandatory	Type	Description
service_type	No	String	Service type. The options are as follows: • Live: Huawei Cloud 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. **NOTE** This parameter takes effect only for data generated after December 15, 2022.

Request Parameters

Table 17-3 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 when AK/SK-based authentication is used.

Response Parameters

Status code: 200

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Table 17-4 Response header parameters

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

Table 17-5 Response body parameters

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

Table 17-6 PeakBandwidthData

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

Status code: 400

Table 17-7 Response header parameters

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

Table 17-8 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

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListDomainBandwidthPeakSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDomainBandwidthPeakRequest request = new ListDomainBandwidthPeakRequest();
        try {
            ListDomainBandwidthPeakResponse response = client.listDomainBandwidthPeak(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
```

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```
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDomainBandwidthPeakRequest()
        response = client.list_domain_bandwidth_peak(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

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```
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDomainBandwidthPeakRequest{}
    response, err := client.ListDomainBandwidthPeak(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

17.2 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.

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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**.

URI

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

Table 17-9 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 17-10 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.

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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: Huawei Cloud 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. **NOTE** This parameter takes effect only for data generated after December 15, 2022.

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Request Parameters

Table 17-11 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 17-12 Response header parameters

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

Table 17-13 Response body parameters

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

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Table 17-14 TrafficSummaryData

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

Status code: 400

Table 17-15 Response header parameters

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

Table 17-16 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"
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListDomainTrafficSummarySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDomainTrafficSummaryRequest request = new ListDomainTrafficSummaryRequest();
        try {
            ListDomainTrafficSummaryResponse response = client.listDomainTrafficSummary(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
```

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```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDomainTrafficSummaryRequest()
        response = client.list_domain_traffic_summary(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDomainTrafficSummaryRequest{}
    response, err := client.ListDomainTrafficSummary(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

17.3 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**.

URI

GET /v2/{project_id}/stats/httpcodes

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Table 17-17 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 17-18 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.
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.

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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. 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 17-19 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.
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

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Table 17-20 Response header parameters

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

Table 17-21 Response body parameters

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

Table 17-22 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 17-23 HttpCode

Parameter	Type	Description
code	Integer	Status code
count	Integer	Number of times a status code is displayed
proportion	Double	Percentage of the status code at the corresponding time point. A maximum of four decimal places are allowed.

Status code: 400

Table 17-24 Response header parameters

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

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Table 17-25 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
    } ]
  } ]
}
```

Status code: 400

Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListQueryHttpCodeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListQueryHttpCodeRequest request = new ListQueryHttpCodeRequest();
        try {
            ListQueryHttpCodeResponse response = client.listQueryHttpCode(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListQueryHttpCodeRequest()
        response = client.list_query_http_code(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListQueryHttpCodeRequest{}
    response, err := client.ListQueryHttpCode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

17.4 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**.

URI

GET /v2/{project_id}/stats/transcode

Table 17-26 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**.

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Table 17-27 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.

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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.

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Request Parameters

Table 17-28 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 17-29 Response header parameters

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

Table 17-30 Response body parameters

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

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

Table 17-31 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 17-32 TranscodeSpec

Parameter	Type	Description
type	String	Output specifications. The format is *codec_resolution* (low-bitrate HD disabled) or *codecPVCresolution* (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.

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Table 17-33 TranscodeSummary

Parameter	Type	Description
type	String	Output specifications. The format is *codec_resolution* (low-bitrate HD disabled) or *codecPVCresolution* (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 codec_resolution (low bitrate HD disabled) or codec_PVC_resolution (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 17-34 Response header parameters

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

Table 17-35 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"
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListTranscodeDataSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
```

```
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListTranscodeDataRequest request = new ListTranscodeDataRequest();
        try {
            ListTranscodeDataResponse response = client.listTranscodeData(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListTranscodeDataRequest()
        response = client.list_transcode_data(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListTranscodeDataRequest{}
    response, err := client.ListTranscodeData(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

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17.5 Querying Recording Channels

Function

Queries the maximum number of recording channels per hour. The total number of recording channels in every minute of an hour is collected, and the maximum value is used as the statistical value.

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**.

URI

GET /v2/{project_id}/stats/record

Table 17-36 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 17-37 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	No	String	Ingest domain name.

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Parameter	Mandatory	Type	Description
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.
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 end time will be 2020-08-18T08:00:00Z. If this parameter is left empty, the current time will be used by default. The end time must be later than the start time.

Request Parameters

Table 17-38 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.

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Parameter	Mandatory	Type	Description
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
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 17-39 Response header parameters

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

Table 17-40 Response body parameters

Parameter	Type	Description
record_data_list	Array of **RecordData** objects	Sampled data list.

Table 17-41 RecordData

Parameter	Type	Description
concurrent_count	Integer	Maximum number of recording channels
time	String	Sampling time, that is, the time point when the maximum number of recording channels is reached in an hour. The date format is ISO 8601 compliant and is YYYY-MM-DDThh:mm:ssZ (UTC time).

Status code: 400

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Table 17-42 Response header parameters

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

Table 17-43 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the duration of live recordings.

```
GET /v2/{project_id}/stats/record?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.

```
{
  "record_data_list" : [ {
    "time" : "2020-08-18T07:00:00Z",
    "concurrent_count" : 20
  }, {
    "time" : "2020-08-18T08:00:00Z",
    "concurrent_count" : 15
  } ]
}
```

Status code: 400

Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

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```
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListRecordDataSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListRecordDataRequest request = new ListRecordDataRequest();
        try {
            ListRecordDataResponse response = client.listRecordData(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
```

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```
        .build()

    try:
        request = ListRecordDataRequest()
        response = client.list_record_data(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListRecordDataRequest{}
    response, err := client.ListRecordData(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

17.6 Querying the Number of Snapshots

Function

Queries the number of snapshots per hour.

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**.

URI

GET /v2/{project_id}/stats/snapshot

Table 17-44 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**.

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Table 17-45 Query Parameters

Parameter	Mandatory	Type	Description
publish_domain	No	String	Ingest domain 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.
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 end time will be 2020-08-18T08:00:00Z. If this parameter is left empty, the current time will be used by default. The end time must be later than the start time.

Request Parameters

Table 17-46 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.

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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 17-47 Response header parameters

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

Table 17-48 Response body parameters

Parameter	Type	Description
snapshot_list	Array of **SnapshotData** objects	Sampled data list.
total	Long	Total number of snapshots in a specified time range

Table 17-49 SnapshotData

Parameter	Type	Description
count	Long	Total number of snapshots per hour
time	String	Sampling time. The format must comply with the ISO 8601 standard (UTC time). The format is YYYY-MM-DDThh:mm:ssZ.

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Status code: 400

Table 17-50 Response header parameters

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

Table 17-51 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries the number of snapshots.

```
GET /v2/{project_id}/stats/snapshot?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.

```
{
  "snapshot_list" : [ {
    "time" : "2020-08-18T07:00:00Z",
    "count" : 25
  }, {
    "time" : "2020-08-18T08:00:00Z",
    "count" : 50
  } ],
  "total" : 75
}
```

Status code: 400

Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListSnapshotDataSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListSnapshotDataRequest request = new ListSnapshotDataRequest();
        try {
            ListSnapshotDataResponse response = client.listSnapshotData(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListSnapshotDataRequest()
        response = client.list_snapshot_data(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListSnapshotDataRequest{}
    response, err := client.ListSnapshotData(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

17.7 Querying Upstream Bandwidth

Function

Queries the upstream bandwidth.

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**.

URI

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

Table 17-52 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**.

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Table 17-53 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	Interval for querying data. 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.
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.

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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. 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 17-54 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

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Table 17-55 Response header parameters

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

Table 17-56 Response body parameters

Parameter	Type	Description
data_list	Array of V2BandwidthData objects	Sampled data list

Table 17-57 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 17-58 Response header parameters

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

Table 17-59 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
```

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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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ShowUpBandwidthSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowUpBandwidthRequest request = new ShowUpBandwidthRequest();
        try {
            ShowUpBandwidthResponse response = client.showUpBandwidth(request);
```

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```
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowUpBandwidthRequest()
        response = client.show_up_bandwidth(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```

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```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowUpBandwidthRequest{}
    response, err := client.ShowUpBandwidth(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

17.8 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.

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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**.

URI

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

Table 17-60 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 17-61 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.

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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. 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 17-62 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

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Table 17-63 Response header parameters

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

Table 17-64 Response body parameters

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

Table 17-65 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 17-66 Response header parameters

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

Table 17-67 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.

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```
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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ShowStreamCountSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
```

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```
        ShowStreamCountRequest request = new ShowStreamCountRequest();
        try {
            ShowStreamCountResponse response = client.showStreamCount(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowStreamCountRequest()
        response = client.show_stream_count(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStreamCountRequest{}
    response, err := client.ShowStreamCount(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

17.9 Querying the Historical Stream List

Function

Queries the historical stream list.

Ongoing streams cannot be queried.

The maximum query time span is one day.

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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**.

URI

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

Table 17-68 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 17-69 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.

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Parameter	Mandatory	Type	Description
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 17-70 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

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Table 17-71 Response header parameters

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

Table 17-72 Response body parameters

Parameter	Type	Description
history_stream_list	Array of **HistoryStreamInfo** objects	Historical stream list
total	Integer	Total number of records

Table 17-73 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.

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Status code: 400

Table 17-74 Response header parameters

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

Table 17-75 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListHistoryStreamsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListHistoryStreamsRequest request = new ListHistoryStreamsRequest();
        try {
            ListHistoryStreamsResponse response = client.listHistoryStreams(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHistoryStreamsRequest()
        response = client.list_history_streams(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHistoryStreamsRequest{}
    response, err := client.ListHistoryStreams(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

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

Error Codes

See **Error Codes**.

17.10 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**.

URI

GET /v2/{project_id}/stats/stream-portraits

Table 17-76 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**.

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Table 17-77 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 17-78 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

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Table 17-79 Response header parameters

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

Table 17-80 Response body parameters

Parameter	Type	Description
stream_portraits	Array of **StreamPortrait** objects	Playback profile details.

Table 17-81 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.

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Status code: 400

Table 17-82 Response header parameters

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

Table 17-83 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ShowStreamPortraitSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowStreamPortraitRequest request = new ShowStreamPortraitRequest();
        try {
            ShowStreamPortraitResponse response = client.showStreamPortrait(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

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```
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowStreamPortraitRequest()
        response = client.show_stream_portrait(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStreamPortraitRequest{}
    response, err := client.ShowStreamPortrait(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	Query succeeded.
400	Incorrect parameter.

Error Codes

See **Error Codes**.

17.11 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 over 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.

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**.

URI

GET /v2/{project_id}/stats/area/detail

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Table 17-84 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 17-85 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.
interval	No	Integer	Interval for querying data (in seconds). The value can be 300 (default value), 3600, or 86,400. If this parameter is left empty, the default value **300** is used. Note: If the value of **metric** is **player** (number of viewers), the value of **interval** will be defaulted to 60 seconds.

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Parameter	Mandatory	Type	Description
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.
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

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Request Parameters

Table 17-86 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 17-87 Response header parameters

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

Table 17-88 Response body parameters

Parameter	Type	Description
data_list	Array of **AreaDetail** objects	Timestamp and metric value at the corresponding time.

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Table 17-89 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 17-90 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 17-91 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

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Table 17-92 Response header parameters

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

Table 17-93 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

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Incorrect parameter.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListAreaDetailSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAreaDetailRequest request = new ListAreaDetailRequest();
        try {
            ListAreaDetailResponse response = client.listAreaDetail(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8
```

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```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAreaDetailRequest()
        response = client.list_area_detail(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAreaDetailRequest{}
    response, err := client.ListAreaDetail(request)
```

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```
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

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

Error Codes

See **Error Codes**.

17.12 Querying Stream Data of a Streaming Domain Name

Function

Queries the monitoring data of a streaming domain name. After a time point is entered, the bandwidth, number of online users, and protocol of all streams at the time point will be returned.

If no domain name is specified, the bandwidth, number of online users, and protocol of all streaming domain names of the tenant at the time point will be queried.

The granularity of the returned data is one minute.

You can query data over the past seven days, and the data delay is five minutes.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/stats/stream/play-info

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Table 17-94 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 17-95 Query Parameters

Parameter	Mandatory	Type	Description
play_domains	No	Array of strings	Streaming domain name list. Up to 10 domain names can be queried. Separate domain names with commas (,). If no domain name is specified, the stream data of all streaming domain names of the tenant is queried.
time	Yes	String	Time when data is queried. The value is accurate to minute. The format must comply with the ISO 8601 standard (UTC time). Format: YYYY-MM-DDThh:mm:ssZ. The maximum query time span is seven days. The time must be an integral time point, for example, 2024-02-02T08:01:00Z.

Request Parameters

Table 17-96 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.

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Parameter	Mandatory	Type	Description
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, which is the same as that used in the URI. This parameter is mandatory for AK/SK authentication.

Response Parameters

Status code: 200

Table 17-97 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Specifies the unique ID of a request.

Table 17-98 Response body parameters

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.
data_list	Array of **PlayDomainStreamInfo** objects	Sampled data list.

Table 17-99 PlayDomainStreamInfo

Parameter	Type	Description
play_domain	String	Streaming domain name
stream	String	Played stream name
protocol	String	Streaming protocol, which can be FLV, HLS, or RTMP.

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Parameter	Type	Description
bandwidth	Long	Specifies the bandwidth value when the granularity is one minute. The unit is bit/s.
online	Long	Number of online users at the granularity of one minute.

Status code: 400

Table 17-100 Response header parameters

Parameter	Type	Description
X-Request-Id	String	Specifies the unique ID of a request.

Table 17-101 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

Queries stream data of a streaming domain name.

```
GET /v2/{project_id}/stats/stream/play-info?play_domains=play.example.com&time=2024-06-06T08:00:00Z
```

Example Responses

Status code: 200

The information is returned when the request succeeded.

```
{
  "time" : "2024-06-06T08:00:00Z",
  "data_list" : [ {
    "play_domain" : "play.example.com",
    "stream" : "test_stream_01",
    "bandwidth" : 1245,
    "online" : 123,
    "protocol" : "hls"
  }, {
    "play_domain" : "play.example.com",
    "stream" : "test_stream_02",
    "bandwidth" : 1025,
    "online" : 60,
    "protocol" : "hls"
  }, {
    "play_domain" : "play.example01.com",
    "stream" : "test_stream_03",
```

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```
    "bandwidth" : 3242,
    "online" : 546,
    "protocol" : "flv"
  } ]
}
```

Status code: 400

The information is returned when the request failed.

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

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListPlayDomainStreamInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListPlayDomainStreamInfoRequest request = new ListPlayDomainStreamInfoRequest();
        try {
            ListPlayDomainStreamInfoResponse response = client.listPlayDomainStreamInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
```

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```
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListPlayDomainStreamInfoRequest()
        response = client.list_play_domain_stream_info(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

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```
    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListPlayDomainStreamInfoRequest{}
    response, err := client.ListPlayDomainStreamInfo(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The information is returned when the request succeeded.
400	The information is returned when the request failed.

Error Codes

See **Error Codes**.

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18 Stream Analytics

18.1 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**.

URI

GET /v2/{project_id}/stats/stream/framerate

Table 18-1 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**.

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Table 18-2 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 18-3 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.

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Parameter	Mandatory	Type	Description
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
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 18-4 Response header parameters

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

Table 18-5 Response body parameters

Parameter	Type	Description
framerate_info_list	Array of **V2FramerateInfo** objects	Usage details.

Table 18-6 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.

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Parameter	Type	Description
data_list	Array of longs	List of frame rates, in fps.

Status code: 400

Table 18-7 Response header parameters

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

Table 18-8 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"
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListSingleStreamFramerateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListSingleStreamFramerateRequest request = new ListSingleStreamFramerateRequest();
        try {
            ListSingleStreamFramerateResponse response = client.listSingleStreamFramerate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
```

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```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListSingleStreamFramerateRequest()
        response = client.list_single_stream_framerate(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListSingleStreamFramerateRequest{}
    response, err := client.ListSingleStreamFramerate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

18.2 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**.

URI

GET /v2/{project_id}/stats/stream/bitrate

Table 18-9 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**.

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Table 18-10 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 18-11 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.

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Parameter	Mandatory	Type	Description
X-Sdk-Date	No	String	Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.
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 18-12 Response header parameters

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

Table 18-13 Response body parameters

Parameter	Type	Description
bitrate_info_list	Array of **V2BitrateInfo** objects	Usage details.

Table 18-14 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.

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Parameter	Type	Description
data_list	Array of longs	List of bitrates, in kbit/s.

Status code: 400

Table 18-15 Response header parameters

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

Table 18-16 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"
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListSingleStreamBitrateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListSingleStreamBitrateRequest request = new ListSingleStreamBitrateRequest();
        try {
            ListSingleStreamBitrateResponse response = client.listSingleStreamBitrate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
```

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```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListSingleStreamBitrateRequest()
        response = client.list_single_stream_bitrate(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListSingleStreamBitrateRequest{}
    response, err := client.ListSingleStreamBitrate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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**.

18.3 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**.

URI

GET /v2/{project_id}/stats/stream-detail

Table 18-17 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**.

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Table 18-18 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.
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.

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Request Parameters

Table 18-19 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 18-20 Response header parameters

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

Table 18-21 Response body parameters

Parameter	Type	Description
publish_domain	String	Ingest domain name
app	String	App name
stream	String	Stream name

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Parameter	Type	Description

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:
		"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	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:
		"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
		]
		}
		]

Table 18-22 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.

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Parameter	Type	Description
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 18-23 Response header parameters

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

Table 18-24 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",
```

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```
    "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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListSingleStreamDetailSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListSingleStreamDetailRequest request = new ListSingleStreamDetailRequest();
        try {
            ListSingleStreamDetailResponse response = client.listSingleStreamDetail(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
```

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```
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListSingleStreamDetailRequest()
        response = client.list_single_stream_detail(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
```

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```
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListSingleStreamDetailRequest{}
    response, err := client.ListSingleStreamDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Information is returned when the processing is successful.
400	Information is returned when the processing fails.

Error Codes

See **Error Codes**.

18.4 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**.

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URI

GET /v2/{project_id}/stats/up-stream/detail

Table 18-25 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 18-26 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.

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Request Parameters

Table 18-27 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 18-28 Response header parameters

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

Table 18-29 Response body parameters

Parameter	Type	Description
publish_domain	String	Ingest domain name
app	String	App name
stream	String	Stream name

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Parameter	Type	Description
data	Array of **UpStreamDetail** objects	Streaming quality data

Table 18-30 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 18-31 Response header parameters

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

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Table 18-32 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"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.live.v2.region.LiveRegion;
import com.huaweicloud.sdk.live.v2.*;
import com.huaweicloud.sdk.live.v2.model.*;


public class ListUpStreamDetailSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LiveClient client = LiveClient.newBuilder()
                .withCredential(auth)
                .withRegion(LiveRegion.valueOf("<YOUR REGION>"))
                .build();
        ListUpStreamDetailRequest request = new ListUpStreamDetailRequest();
        try {
            ListUpStreamDetailResponse response = client.listUpStreamDetail(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklive.v2.region.live_region import LiveRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklive.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
    credentials = BasicCredentials(ak, sk, projectId)

    client = LiveClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LiveRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListUpStreamDetailRequest()
        response = client.list_up_stream_detail(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    live "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/live/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := live.NewLiveClient(
        live.LiveClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListUpStreamDetailRequest{}
    response, err := client.ListUpStreamDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The information is returned when the request succeeded.
400	The information is returned when the request failed.

Error Codes

See **Error Codes**.

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19 Appendix

19.1 Status Codes

Table 19-1 lists the status codes that may be returned when you call Live APIs.

Table 19-1 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.

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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.

19.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

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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.
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.

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Status Code	Error Codes	Error Message	Description	Solution
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.
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.

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Status Code	Error Codes	Error Message	Description	Solution
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.
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.
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.

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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.

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Status Code	Error Codes	Error Message	Description	Solution
500	LIVE.10301102323	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.10301102828	Failed to synchronize the domain name to DNS.	Failed to synchronize the domain name to DNS.	Submit a service ticket to reach technical support.

19.3 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:

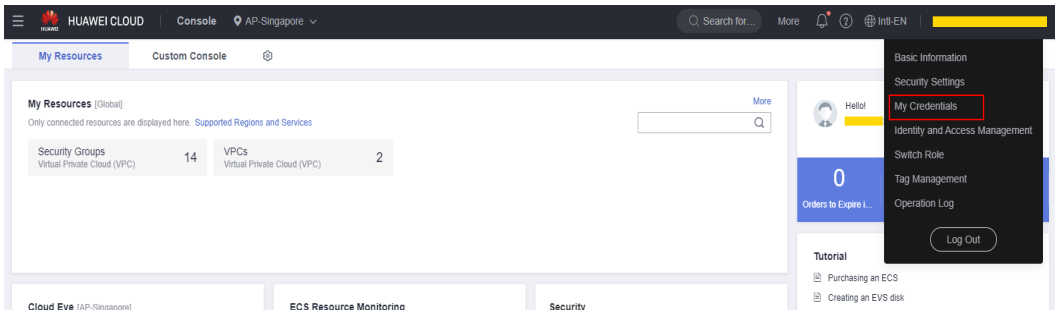
- **Obtaining a Project ID from the Console**
- **Obtaining a Project ID by Calling an API**

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 19-1 Console



Step 3 On the **API Credentials** page, view project IDs in the project list.

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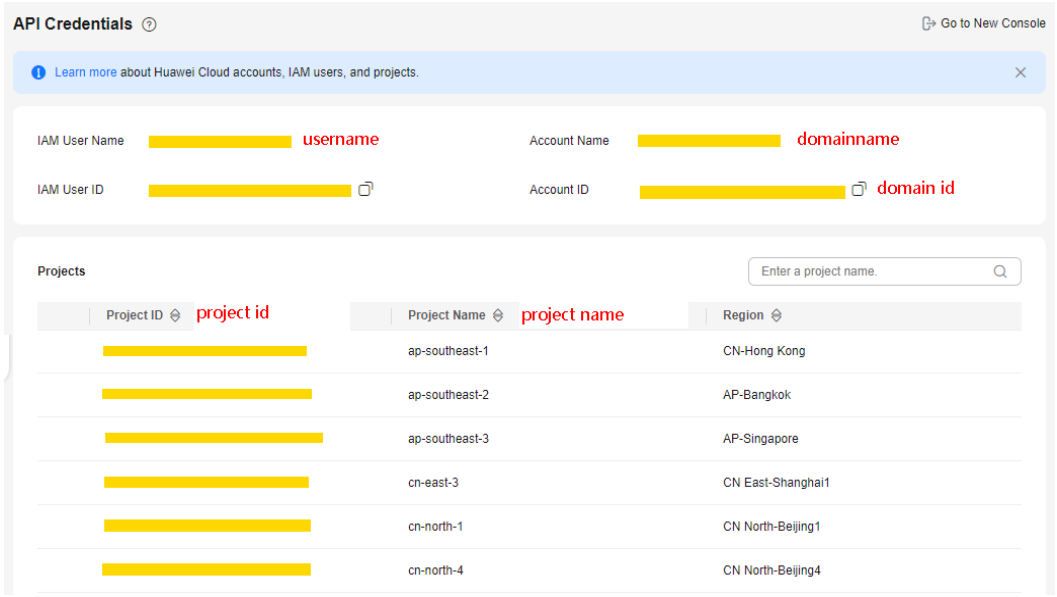
Figure 19-2 Obtaining a project ID



----End

Obtaining a Project ID by Calling an API

You can obtain a project ID by calling the API for **querying project information**.

The API for obtaining a project ID is **GET https://*{Endpoint}*/v3/projects/**. *{Endpoint}* indicates the endpoint of IAM, which can be obtained from **Endpoints**. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** under **projects** is the project ID.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "region01",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

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19.4 Obtaining an Account ID

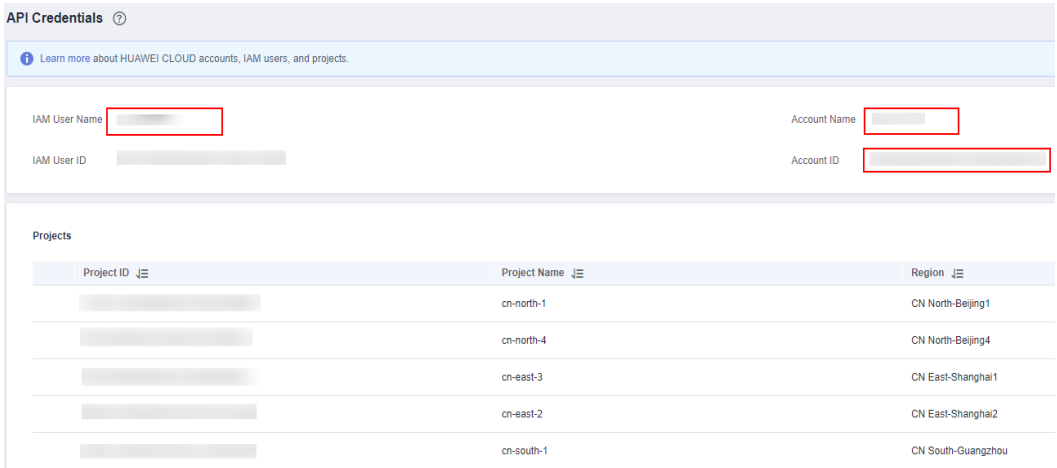
An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following steps:

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 19-3 Obtaining an account ID



----End

19.5 Region Name Abbreviations

Table 19-2 Region name abbreviations

Region	Abbreviation
Others	OT
Beijing	BJ
Tianjin	TJ
Chongqing	CQ
Shanghai	SH
Guangdong	GD
Hainan	HI
Guangxi	GX
Yunnan	YN

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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

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19.6 Country/Region Name Abbreviations

Table 19-3 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

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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

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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

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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

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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

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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

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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

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Country/Region	Abbreviation
Vanuatu	VU
Vatican City	VA
Venezuela	VE
Vietnam	VN
Wallis and Futuna	WF
Yemen	YE
Zambia	ZM
Zimbabwe	ZW

19.7 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)	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

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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 South 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

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Billing Area	Region/Country	Code
	Netherlands	NL
	Poland	PL
	Romania	RO
	Russia	RU
	Sweden	SE

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20 Change History

Table 20-1 Change history

Released On	Description
2024-02-23	This issue is the thirty-fourth official release. Changed the maximum value of the **record_cycle** field for FLV and MP4 in the APIs for creating and modifying a recording template.
2023-09-19	This issue is the thirty-third official release. Modified the transcoding template management APIs. Added the request parameters **bitrate_adaptive** and **i_frame_policy**, and updated the description of the following parameters: **templateName**, **PVC**, **hdlb**, **width**, **height**, **iFrameInterval**, and **gop**.
2023-07-24	This issue is the thirty-second official release. Modified the API for querying the duration of transcoded outputs and added the description and request example of resource bill run settled by hour. Modified the API for querying bandwidth utilization and added the description of querying data generated three hours ago for reconciliation. Modified the API for querying the distribution of livestreaming metrics by region and added the description of querying data generated three hours ago for reconciliation.
2023-06-29	This issue is the thirty-first official release. Added the **global** area to the **service_area** field in the APIs for creating, modifying, and querying Live domain names.
2023-05-12	This issue is the thirtieth official release. Added the error code LIVE.100011022.

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Released On	Description
2023-05-06	This issue is the twenty-ninth official release. Modified the description of the API for querying total traffic. Added the description that data query is delayed for about 10 minutes.
2023-04-23	This issue is the twenty-eighth official release. Modified the description of the API for querying the duration of transcoded outputs. Added the description that data about the transcoded output duration is delayed for one hour.
2023-04-18	This issue is the twenty-seventh official release. Changed the maximized user and API request throttling of the API for querying the distribution of livestreaming metrics by region. The user request throttling is changed from 5 times/second to 50 times/second, and the API request throttling is changed from 15 times/second to 150 times/second.
2023-03-21	This issue is the twenty-sixth official release. ● Added the access control, snapshot, HTTPS certificate, and OBS bucket management API groups. ● Changed the default values of the **default_record_config**, **hls_config**, and **record_cycle** fields in the APIs for creating and modifying a recording template.
2023-02-09	This issue is the twenty-fifth official release. Modified the description of the **record_prefix** and **record_ts_prefix** parameters in the APIs for creating and modifying recording templates.
2023-01-18	This issue is the twenty-fourth official release. ● Added billing description for the APIs for creating a transcoding template and creating a recording template. ● Added request throttling to the domain name management API in section "Before You Start".

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Released On	Description
2023-01-06	This issue is the twenty-third official release. ● Added the API for querying CDN upstream streaming quality data. ● The **play_domains** parameter of the APIs for querying bandwidth utilization, traffic utilization, the peak bandwidth, and the total playback traffic becomes an optional parameter. ● Added the **service_type** parameter to the APIs for querying bandwidth utilization, traffic utilization, the peak bandwidth, the total playback traffic, and number of viewers by stream. ● Added the **type** parameter to the API for querying upstream bandwidth.
2022-12-29	This issue is the twenty-second official release. Modified the region/country codes.
2022-12-27	This issue is the twenty-first official release. ● Added the API for querying the distribution of livestreaming metrics by region. ● Deleted the parameter **type** from the API for querying upstream bandwidth. ● Added the response parameter and request parameter **key** upon successful requests of the APIs for creating and modifying recording callback configurations. ● Modified the request example of the API for configuring the IPv6 function for a domain name. ● Modified the region/country codes.
2022-12-20	This issue is the twentieth official release. Added the **type** parameter to the API for querying upstream bandwidth.
2022-12-07	This issue is the nineteenth official release. ● Added the AK/SK authentication header to v1 APIs. ● Brought offline the API for querying the distribution of livestreaming metrics by region.
2022-09-29	This issue is the eighteenth official release. Deleted the **call_back_ssl_ca** and **call_back_ssl_verify** parameters from the recording callback management API.
2022-09-27	This issue is the seventeenth official release. Modified the sample code of the API for querying recording rule configurations and deleted the **start_time**, **project_id**, and **end_time** parameters.

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Released On	Description
2022-09-08	This issue is the sixteenth official release. Modified the region/country codes.
2022-09-06	This issue is the fifteenth official release. Added the API for creating a video recording index to the recording management API group.
2022-08-26	This issue is the fourteenth official release. ● Modified the description of the **area** parameter in the API for querying the distribution of livestreaming metrics by region and the description of the **name** parameter in the response body. ● Modified the request throttling restrictions on the API for querying the distribution of livestreaming metrics by region. ● Changed the maximum query period of the APIs for querying the duration of transcoded outputs, querying recording channels, and querying the number of snapshots to one year. ● Added the region/country codes.
2022-07-05	This issue is the thirteenth official release. ● Changed the **X-request-id** parameter in the response headers of all APIs to **X-Request-Id**. ● Modified the example response of the API for querying domain names.
2022-07-01	This issue is the twelfth official release. Modified the reference example of the API for querying playback profiles.
2022-03-25	This issue is the eleventh official release. Modified the status code of successfully deleting a Live transcoding template to 200.

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Released On	Description
2022-03-01	This issue is the tenth official release. ● Adjusted the user and API request throttling of the API for querying ongoing streams. The user request throttling is changed from 4000 times/minute to 1000 times/minute, and the API request throttling is changed from 8000 times/minute to 2000 times/minute. ● Adjusted the user and API request throttling of the API for resuming a push stream. The user request throttling is changed from 4000 times/minute to 3000 times/minute, and the API request throttling is changed from 8000 times/minute to 6000 times/minute. ● Adjusted the user and API request throttling of the API for querying disabled streams. The user request throttling is changed from 300 times/minute to 3000 times/minute, and the API request throttling is changed from 3000 times/minute to 6000 times/minute. ● Adjusted the API request throttling of the APIs for disabling a push stream and modifying the attribute of a disabled stream. The API request throttling is changed from 8000 times/minute to 12,000 times/minute.
2022-02-28	This issue is the ninth official release. Deleted the API for querying the number of transcoding tasks.
2022-02-22	This issue is the eighth official release. Added the API for querying stream analytics to stream analytics APIs.
2022-01-26	This issue is the seventh official release. ● Modified the recording management APIs and deleted **PLAN_RECORD** and **ON_DEMAND_RECORD**. ● Modified the recording callback management APIs and deleted **on_demand_callback_url**. ● Added statistics analysis APIs and stream analytics APIs.
2021-12-21	This issue is the sixth official release. Modified the description of the **domain** parameter in the stream management APIs and transcoding template management APIs. This parameter specifies an ingest domain name.

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Released On	Description
2021-12-16	This issue is the fifth official release. ● The **default_record_config** parameter is mandatory in the API for creating a recording rule. ● Modified the description of the **offset** and **limit** parameters in the APIs for listing recording callbacks and recording rules.
2021-09-26	This issue is the fourth official release. Revised description of endpoints in section "Before You Start".
2021-09-10	This issue is the third official release. ● Added the API for submitting a recording command to section "Recording Management". ● Added parameters including **video_frame_rate** and **audio_frame_rate** to the API for querying ongoing streams.
2021-06-02	This issue is the second official release. Modified the format of the **record_format** parameter in the API for creating a recording template. The parameter value can contain only uppercase letters.
2021-05-01	This issue is the first official release.

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