



CDNetworks

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Cloud Live API Guide

Version 1.1

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Version History

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1 Overview

CDNetworks cloud video platform API describes each available resource according to the REST specification, and allows the user to access CDNetworks cloud video platform using the HTTP protocol. By using the POST and GET requests, users can also create, view, modify, disable, enable, and delete resources. Two response data formats, the json and xml formats, are available for the user to choose during the interaction process.

When receiving the user API request, CDNetworks cloud video platform will first verify whether the userId and the token value are legal. If not, the system will deny the request.

CDNetworks cloud video limits the access frequency of each user account, and the number of requests per minute is no more than 200 times. If there are special demands, the user can contact the CDNetworks staff to lift the restriction.

API requests all need to pass the authentication of CDNetworks cloud video. Before using the cloud video platform, users need to conform that they have become the users of CDNetworks cloud video, and have obtained the userId (AccessKey ID) and the secretKey (AccessKey Secret) which are used to calculate the verification token.

Please refer to instructions under Calling Method chapter for the details of authentication rules.

2 Channel Management

2.1 Channel creation

2.1.1 Description

By using the interface to create a channel on the CDNetworks cloud video platform, the system will generate a push stream address, a few corresponding pull-stream addresses, and relevant resources.

The system will also allocate a globally unique pullId for the channel as its unique ID.

2.1.2 Request specification

Request method	Post/get
Interface address	<code>http://api.cloudv.haplat.net/live/channelManage/createChannel</code>
If token is needed	The verification token is needed

2.1.3 Request parameters

Parameter name	Parameter type	If required	Description
channelName	string	Yes	Channel name, up to 40 characters
pushDomain	string	Yes	Domain for stream pushing/publishing ; After being created, the domain will be used in the push stream URL which is automatically generated by the system. For example: <code>rtmp://push-stream domain/app name/stream name</code> . And the stream name is automatically allocated by the system after the channel creation.
channelType	string	Yes	Channel type, or it's called application name. It must match the application name which is configured for the push stream domain and can only be a combination of English letters, Arabic numerals and underlines;

pullProtocol	string	No	<p>Protocol for playback stream pulling; the protocol should be included in the output protocol types configured for the push stream domain (0: RTMP, 1: HDL, 2: HLS and 3: HDS). The default protocol is option 0. Multiple protocols can be chosen, but option 2 and 3 cannot be chosen at the same time. After being created, the system will automatically generate the URL of playback pull stream. For example: rtmp://pull stream domain/app name/stream name</p> <p>If using the Live recording task creation API for recording, this parameter must contain at least one of the RTMP protocol or the HDL protocol when creating a channel.</p>
pullRate	string	Yes	<p>Pull stream bitrate on the playback side; the chosen bitrate must be included in the transcoding bitrate range configured for the push stream domain (0: origin bitrate, 1: fluent, 2: Standard definition, 3: High definition and 4: Ultra-high definition); The default bitrate is option 0, and multiple bitrates can be chosen;</p> <p>After Channel being created, the system will generate the URL of playback for different bitrates automatically. For example: rtmp://pull-stream domain/app name/stream name_bitrate.</p>
playerId	string	No	<p>Set Player ID for the channel; if no input, use the default player.</p>



directoryId	string	No	ID of the recording directory; please see New recording directory Chapter for more information. If the recording directory management function is not enabled, this item does not need to be filled out.
check	string	No	Stream verification string
whiteBoardConfig	string	No	<p>Without passing this parameter, the whiteboard feature will not be enabled for the channel.</p> <p>A JSON string encoded by urlsafe base64, e.g.: eyJvcGVuljogMSwid2hpdGVcb2FyZElkljogInh4eCJ9</p> <p>The format of a JSON string before encoding is as follows: {"open": 1,"whiteBoardId": "xxx"}.</p> <p>And it has two properties which are "open" and "whiteboard".</p> <p>"open" is a required item that indicates if to turn on the whiteboard. "0" means not turning on, and "1" means turning on.</p> <p>"whiteBoardId" is not a required item which indicates the ID of whiteboard. If not configured, the system will auto-generate a value.</p>
live2vod	int	No	To switch Immediate Recording on/off, 1 stands for on, 0 stands for off. And it's off by default.



appScenario	string	No	Scenario. The specified scenario should be an existing one.
-------------	--------	----	---

2.1.4 Request example

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/createChannel \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d

'channelName=sample1&channelType=test1&pushDomain=livepush.ovptest.haplat.net&pullP
rotocol=0%2C1%2C2&pullRate=0%2C1%2C2%2C3%2C4&playerId=&directoryId=3305056c015
c10008edfd86f00000000&live2vod=1'

2.1.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Response status code, and code 200 indicates the successful



			response
message	string	Yes	Request succeeded
pullId	string	Yes	Pull Stream ID, a globally unique value

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	Yes	Error response message

2.1.6 Response example

```
{
  "code": 200,
  "data": {
    "createTime": 1501570966,
    "pullId": "287264e85a754da4927859d162c5f812"
  },
  "message": "Request succeeded"
}
```

}

2.1.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items are filled in
1007	No authority to request for live api
1000	Parameter error; parameter empty or wrong type, etc.
1626	directoryId cannot be empty
1627	Illegal directoryId
1628	directoryId does not exist or has been deleted, or does not belong to your scope of authority
1611	Value-added service of recording directory is not enabled
1277	Whiteboard function is not enabled!
1278	Whiteboard id is illegal or has been associated!
1648	Scenario does not exist.

As indicated in the above diagram, the realization of CDNetworks Prompt Stream Forbidding includes three steps:

- Streamers push streams to CDNetworks Media Center, which will then distribute the streams to viewers via CDNetworks' content delivery network.
- Content auditors pull streams from CDNetworks CDN servers for content auditing.
- Content auditors create banning tasks or call the CDNetworks API in real-time to ban any target streams.

2.2 Individual channel configuration details obtaining

2.2.1 Description

Through this interface, the configuring information, such as name, push-stream URL, playback URL, etc., of a specified channel created on the cloud video platform can be obtained.

2.2.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/getChannelConfigure
If token is needed	The verification token is needed

2.2.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Pull-stream id, channel unique id

2.2.4 Request example

```
curl -X POST \
https://api.cloudv.haplat.net/live/channelManage/getChannelConfigure \
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
-H "Host: api.cloudv.haplat.net" \
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
-H "X-WS-Timestamp: 1559557864" \
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
-d 'pullId=287264e85a754da4927859d162c5f812'
```

2.2.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Successful response status code, 200
message	string	No	Request succeeded



channelName	string	Yes	Channel name
createTime	string	Yes	Channel creation time, e.g. 2016-05-08 12:00:00
createUser	string	Yes	userName which created the channel
playerId	string	Yes	Player ID for the channel
directoryId	string	No	Recording directory ID; there will only be a return value when the channel has enabled the value-added service of recording directory management and has configured the recording directory.
channelStatus	int	Yes	Current live status of the channel; 1. live streaming 2. not started yet 3. banned
live2vod	int	Yes	To switch Immediate Recording on/off, 1 stands for on, 0 stands for off. And it's off by default.
pushConfigureInfo	array	Yes	Configuration information of the push stream
appScenario	string	No	Scenario
The following is the array content of origin end push-stream configuration			



pushProtocol	string	Yes	Push-stream protocol
pushUrl	string	Yes	Push-stream URL
pullConfigureList	array	Yes	Pull-stream configuration information list (pull-stream protocol, pull-stream url)
The following is the array content of the player end pull-stream configuration			
pullProtocol	string	Yes	Pull-stream protocol
pullUrlList	Array	Yes	Pull-stream url list
Parameters in the pullUrlList are as follows			
originPullUrl	string	No	url of original bitrate pull stream
fluentPullUrl	string	No	url of fluent bitrate pull stream
sdPullUrl	string	No	url of standard-definition pull stream
highPullUrl	string	No	url of high-definition pull stream
hdPullUrl	string	No	url of ultra-high-definition pull stream
originZkgqPullUrl	string	No	url of original bitrate pull stream(LBHD)
fluentZkgqPullUrl	string	No	url of fluent bitrate pull stream(LBHD)
sdZkgqPullUrl	string	No	url of standard-definition pull stream (LBHD)



highZkgqPullUrl	string	No	url of high-definition pull stream (LBHD)
hdZkgqPullUrl	string	No	url of ultra-definition pull stream (LBHD)

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.2.6 Response example

```
{
  "code": 200,
  "data": {
    "channelName": "sample1",
    "channelStatus": 2,
    "createTime": "2021-08-01 15:02:46",
    "createUser": "ovptest",
    "directoryId": "3305056c015c10008edfd86f00000000",
    "playerId": "DF2DAF233DDA1",
```



```
"pullConfigureList": [  
  
  {  
  
    "pullProtocol": "RTMP",  
  
    "pullUrlList": [  
  
      {  
  
        "fluentPullUrl":  
"rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800",  
  
        "hdPullUrl":  
"rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000",  
  
        "highPullUrl":  
"rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000",  
  
        "originPullUrl":  
"rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772",  
  
        "sdPullUrl":  
"rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200"  
  
      }  
  
    ]  
  
  },  
  
  {  
  
    "pullProtocol": "HDL",  
  
    "pullUrlList": [  
  
      {  
  

```

```
        "fluentPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800.flv",  
        "hdPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000.flv",  
        "highPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000.flv",  
        "originPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772.flv",  
        "sdPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200.flv"  
    }  
]  
},  
{  
    "pullProtocol": "HLS",  
    "pullUrlList": [  
        {  
            "fluentPullUrl":  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800/playlist.m3u  
8",  
            "hdPullUrl":  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000/playlist.m3  
u8",
```

```
        "highPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000/playlist.m3u8",  
  
        "originPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772/playlist.m3u8",  
  
        "sdPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200/playlist.m3u8"  
    }  
]  
}  
],  
"pushConfigureInfo": [  
    {  
        "pushProtocol": "RTMP",  
        "pushUrl":  
        "rtmp://livepush.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772?wsRecord=off&pusht=1501572848&pushKey=d3015acd2e46578724d0ecc071181dba"  
    }  
]  
},  
"message": " Request succeeded"
```

}

2.2.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items have been filled in
1007	No authority to request for live api
1000	Parameter error; parameter empty or wrong type

2.3 Batch obtaining of channel list information

2.3.1 Description

Batch obtain information of all created channels through the interface, including the channel name, pull-stream ID, live status and channel creation time.

2.3.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/getChannelList
If token is needed	The verification token is needed

2.3.3 Request parameters



Parameter name	Parameter type	If required	Description
listOrder	int	No	Get order of the channel list; 0 by default; 0: descending by creation time, 1: ascending by creation time
pageIndex	int	No	Page number in the paged channel list; starts from 1; 1 by default
pageSize	int	No	Average number of channels per page, the default is 10; and the value is between 1-50
appScenario	string	No	Scenarios

2.3.4 Request example

```
curl -X POST \
https://api.cloudv.haplat.net/live/channelManage/getChannelList \
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
-H "Host: api.cloudv.haplat.net" \
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
-H "X-WS-Timestamp: 1559557864" \
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```



-d 'listOrder=0&pageIndex=1&pageSize=1'

2.3.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200
message	string	No	Response status message
channelToal	int	Yes	Total number of channels
channelList	array	No	Channel list array
The following is the content of one channel in the channel list array			
channelName	string	Yes	Channel name
channelType	string	Yes	Channel type
channelStatus	int	Yes	Channel live status; 1: live streaming, 2: not started yet, 3: banned
live2vod	int	Yes	To switch Immediate Recording on/off, 1 stands for on, 0 stands for off. And it's off by default.
createTime	string	Yes	Channel creation time; e.g. 2015-05-07



			12:00:00
userId	string	Yes	User ID which created the channel
pullId	string	Yes	Pull-stream ID
pushUrl	string	Yes	Push-stream URL
directoryId	string	No	Recording directory ID; There will only be a return value when the channel has enabled the value-added service of recording directory management and has configured the recording directory.
appScenario	string	No	Scenarios

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.3.6 Response example

```
{
  "code": 200,
  "data": {
```



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```
"channelList": [  
  
  {  
  
    "channelName": "creatchannel",  
  
    "channelStatus": 2,  
  
    "channelType": "test1",  
  
    "createTime": "2017-08-01 15:09:02",  
  
    "directoryId": "",  
  
    "pullId": "41b6713a25994bfc14a91241c40c4ea",  
  
    "pushUrl":  
    "rtmp://livepush.ovptest.haplat.net/test1/ba88e6f154604fbd8a25209c770476bc?pusht=150  
1575822&pushKey=324689a56b0f7c3f9179014522ed5bbc",  
  
    "userId": "110041"  
  
  },  
  
  ],  
  
  "channelTotal": 8785  
  
},  
  
"message": "Request succeeded"  
  
}
```


2.3.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items have been filled in
1007	No authority to request for live API
1000	Parameter error; parameter empty or wrong type
1648	Scenario does not exist.

2.4 Channel deletion

2.4.1 Description

Through this interface, one or more of the created cloud live channels can be deleted permanently.

2.4.2 Request specification

Request method	post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/deleteChannel
If token is needed	Verification token is needed

2.4.3 Request parameters



Parameter name	Parameter type	If required	Description
pullId	string	Yes	Pull-stream ID; channel unique identifier; multiple IDs are separated by ","

2.4.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/deleteChannel \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d 'pullId=2ca722b02b004ace990f35499302f7ce'
```

2.4.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200



message	string	No	Request succeeded
---------	--------	----	-------------------

Deletion failure

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.4.6 Response example

```
{
  "code": 200,
  "data": "",
  "message": "Request succeeded"
}
```

2.5 Obtaining live status of a single channel

2.5.1 Description

The live status of a specified channel can be obtained through this interface, and the status types are “live streaming”, “not started yet” and “banned”.

2.5.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/getChannelLiveState
If token is needed	Verification token is needed

2.5.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Pull-stream ID

2.5.4 Request example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/channelManage/getChannelLiveState \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
  -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
  -H "X-WS-Timestamp: 1559557864" \
  -H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
  -d 'pullId=2ca722b02b004ace990f35499302f7ce'
```

2.5.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded
channelState	int	Yes	Returns the real-time live stream status corresponding to each pull-stream ID: 1: live streaming, 2: not started yet, 3: banned

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.5.6 Response example

```
{
  "code": 200,
  "data": {
```

```

    "channelState": 2

  },

  "message": " Request succeeded"
}

```

2.7 Channel banning

2.7.1 Description

Through this interface, a prompt stream banning on one or more channels specified can be triggered, and the channel can no longer push streams after the banning.

2.7.2 Request specification

Request method	POST/GET
Interface address	http://api.cloudv.haplat.net/live/channelManage/channelForbidden
If token is needed	Verification token is needed

2.7.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Pull-stream ID, unique channel identifier, and multiple IDs are separated by “;”;

2.7.4 Request example

```

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/channelForbidden \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullId=41b6713a25994bfc14a91241c40c4ea'
  
```

2.7.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded
message	string	No	Request succeeded

Error response

Parameter name	Parameter type	If required	Description
----------------	----------------	-------------	-------------



code	int	Yes	Error response code
message	string	No	Error response message

2.7.6 Response example

```
{
  "code": 200,
  "data": "",
  "message": "Request succeeded"
}
```

2.8 Channel unbanning

2.8.1 Description

Through this interface, one or more specified channels that are banned can be unbanned, and the unbanned channel will then be able to push streams.

2.8.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/channelReBroadcast
If token is needed	Verification token is needed

2.8.3 Request parameters



Parameter name	Parameter type	If required	Description
pullId	string	Yes	Pull-stream ID, unique channel identifier, and multiple IDs are separated by ",";

2.8.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/channelReBroadcast \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d 'pullId=41b6713a25994bfc14a91241c40c4ea'
```

2.8.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded



message	string	No	Request succeeded
---------	--------	----	-------------------

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.8.6 Response example

```
{
  "code": 200,
  "data": "",
  "message": "Request succeeded"
}
```

2.9 Channel editing

2.9.1 Description

Through this interface, editing and modification, such as changing the channel name, refreshing the push-stream URL, etc., can be performed on the created channel.

2.9.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/channelEdit
If token is needed	Verification token is needed

2.9.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Channel pull-stream ID
channelName	string	No	Channel name; up to 40 characters
resetPushId	string	No	Reset push-stream ID; 0: default, 1: reset; 0 is not to reset
pullRate	int	No	<p>Player end pull-stream bitrate; can choose more than one type of bitrate; make sure the chosen bitrate is in the transcoding bitrate range configured for the push-stream domain;</p> <p>0: origin bitrate, 1: fluent, 2: standard-definition, 3: high-definition, 4: ultra-high-definition</p>

directoryId	string	No	Recording directory ID; please refer to New recording directory for more information; not required if the function of recording directory management is not enabled
check	string	No	Stream verification string
whiteBoard Config	string	No	<p>Without inputting this parameter, the whiteboard feature will remain the same and will not be modified. A JSON string encoded by urlsafe base64, e.g.:</p> <p>eyJvcGVuljogMSwid2hpdGVcb2FyZEIkljogInh4eCJ9</p> <p>The format of a JSON string before encoding: {"open": 1,"whiteBoardId": "xxx"}.</p> <p>Following are its two properties:</p> <p>"open" is a required item that indicates if to enable the whiteboard; 0: disable and 1: enable; "whiteBoardId" is not a required item which indicates the ID of the whiteboard; only requires a value when "open" is 1;</p> <p>This interface does not support modifying whiteboard ID.</p>
live2vod	int	No	To switch Immediate Recording on/off, 1 stands for on, 0 stands for off. And it's off by default.
appScenario	string	No	Scenario. The specified scenario should be an existing one.

2.9.4 Request example

```
curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/channelEdit \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d

'channelName=sample2&resetPushId=1&pullRate=0%2C1%2C2&pullId=17bb9b726f4843b1bf84775ea1657424&directoryId=7ce54aad015c10000c28619200000000&live2vod=1'
```

2.9.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded
message	string	No	Request succeeded



pushUrl	string	Yes	Push-stream URL
channelName	string	Yes	Channel name, up to 40 characters

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.9.6 Sample response

```
{
  "code": 200,
  "data": {
    "channelName": "sample2",
    "pushUrl":
"rtmp://livepush.ovptest.haplat.net/test1/a3a7328d4f404adba6a2bdc5d79eef15?pusht=150
1574777&pushKey=a5216dd767b3f02b42976c9a52d140a9"
  },
  "message": "Request succeeded"
}
```



2.9.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items have been filled in
1007	No authority to request for live api
1000	Parameter error, parameter empty, type error and so on
1626	directoryId cannot be empty
1627	Illegal directoryId
1628	directoryId does not exist or have been deleted, or does not belong to your scope of authority
1611	The value-added service of recording directory management is not enabled
1277	Whiteboard feature is not enabled!
1278	Whiteboard ID is illegal or has been associated!
1648	Scenario does not exist.

2.10 Playback code obtaining

2.10.1 Description

Through the interface, the playback code, mainly the HTML code, swf code, js code and video url, can be obtained.

2.10.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/getSinglePullCode
If token is needed	Verification token is needed

2.10.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Channel pull-stream ID
playerId	string	No	Fill in the ID of the player configured for the channel; use the default player if this parameter is not filled in
playerSize	string	No	Configure player aspect ratio; five fixed options (1280*720、1024*768、1024*576、640*360、480*360) and one custom option (aspect ratio larger than 480*360 and less than 1920*1080) are provided; if not filled in, the default is 480*360.



autoPlay	int	No	If to auto-play the video; the default is 0; 0: no, 1: yes
codeType	int	No	Choose the playback code types; all code types are obtained by default; 0: all code types, 2: swf code, 4: video url, 5: adaptive code

2.10.4 Request example

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/getSinglePullCode \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441cca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullId=287264e85a754da4927859d162c5f812'

2.10.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
----------------	----------------	-------------	-------------



code	int	Yes	200, request succeeded
message	string	No	Request succeeded
pullCodeInfo	array	No	Pull-stream code list
The following is the array content of pull-stream code			
htmlCode	array	No	Channel html code
swfCode	array	No	Channel swf code
jsCode	array	No	Channel js adaptive code
videoUrl	array	No	Channel pull-stream url list
url list parameters of videoUrl			
pullProtocol	String	No	Pull-stream protocol; 0: RTMP, 1: Http flv, 2: HLS, 3: HDS, 4: Http TS
urlInfo	array	No	pull-stream url of pullProtocol
The following are parameters of urlList			
originPullUrl	string	No	URL of origin bitrate pull stream
fluentPullUrl	string	No	URL of fluent pull stream
sdPullUrl	string	No	URL of standard-definition pull stream



highPullUrl	string	No	URL of high-definition pull stream
hdPullUrl	string	No	URL of ultra-high-definition pull stream
originZkgqPullUrl	string	No	url of original bitrate pull stream(LBHD)
fluentZkgqPullUrl	string	No	url of fluent bitrate pull stream(LBHD)
sdZkgqPullUrl	string	No	url of standard-definition pull stream (LBHD)
highZkgqPullUrl	string	No	url of high-definition pull stream (LBHD)
hdZkgqPullUrl	string	No	url of ultra-definition pull stream (LBHD)

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	Yes	Error response message

2.10.6 Sample response

```
{
  "code": 200,
```

```
"data": {
  "pullCodeInfo": {
    "htmlCode": "<!DOCTYPE html>\r\n<html >\r\n<body
style=\"margin:0px\">\r\n<object classid=\"clsid:D27CDB6E-AE6D-11cf-96B8-
444553540000\" \r\n
codebase=\"https://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#ve
rsion=7,0,0,0\" \r\n      width=\"800\" height=\"450\" \r\n
id=\"69C21BB5705EDD63_287264e85a754da4927859d162c5f812_false_21\">\r\n
<param name=\"movie\"
value=\"https://cloudv.chinanetcenter.com/swf/player/69C21BB5705EDD63_287264e85a754
da4927859d162c5f812_false_21/StrobeMediaPlayback.swf\" />\r\n    <param
name=\"allowFullScreen\" value=\"true\" />\r\n    <param name=\"allowScriptAccess\"
value=\"always\" />\r\n    <param name=\"wmode\" value=\"transparent\" />\r\n\r\n
<embed
src=\"https://cloudv.chinanetcenter.com/swf/player/69C21BB5705EDD63_287264e85a754d
a4927859d162c5f812_false_21/StrobeMediaPlayback.swf\" \r\n      width=\"800\"
height=\"450\"
name=\"69C21BB5705EDD63_287264e85a754da4927859d162c5f812_false_21\"
allowFullScreen=\"true\" wmode=\"transparent\" allowScriptAccess=\"always\" \r\n
pluginspage=\"https://www.macromedia.com/go/getflashplayer\" type=\"application/x-
shockwave-flash\">\r\n\r\n\r\n</object>\r\n<script type=\"text/javascript\">\r\n    function
jsClientCookieValue(cookieName){\r\n      var cookieArr= {};\r\n
cookieArr[\"check\"] = \"${check}\";\r\n      cookieArr[\"t\"] = \"${t}\";\r\n
cookieArr[\"k\"] = \"${k}\";\r\n      return cookieArr;\r\n\r\n\r\n    }\r\n    //The playback
record time is obtained from the business system according to different business, and the
method is called when the player starts playing to obtain the playback record. \r\n
function wsJsLastPlayRecordTime(){\r\n      return 0;//start playing from the 10th
second\r\n    }\r\n\r\n    //This interface will be triggered when the video playback
finishes on the player. \r\n    function wsJsVodCompleted(){\r\n
//dosomething\r\n    }\r\n\r\n    //This interface is triggered when the video + the ad
```



```

    playback finish. \r\n    function
    vodCompleted(){\r\n        }\r\n\r\n</script>\r\n</body>\r\n</html>",

        "jsCode": "<!DOCTYPE html>\r\n<html>\r\n<head>\r\n    <meta http-
    equiv=\"Content-Type\" content=\"text/html; charset=utf-8\"/>\r\n</head>\r\n<body
    style=\"margin:0px\">\r\n<div id=\"player\" style=\"width: 800px;height:
    600px;\">></div>\r\n<script type=\"text/javascript\"
    src=\"https://cloudv.chinanetcenter.com//common/plugins/jquery/jquery-
    1.11.1.min.js\"></script>\r\n<script type=\"text/javascript\"
    src=\"https://cloudv.chinanetcenter.com//js/player/cloudvInterface.js\"></script>\r\n<script
    type=\"text/javascript\"
    src=\"https://cloudv.chinanetcenter.com//js/player/judgePlay.js\"></script>\r\n<script
    type=\"text/javascript\">\r\n    $(document).ready(function () {\r\n        var videoid =
    \"287264e85a754da4927859d162c5f812\";\r\n        var listId =
    \"287264e85a754da4927859d162c5f812\";\r\n        if (\"player\" == \"playerList\") {\r\n
    videoid = \"\";\r\n        } else {\r\n            listId = \"\";\r\n        }\r\n        var
    playerElementId = \"player\";\r\n        var params = {\r\n            parentId: \"#\" +
    playerElementId,\r\n            playerType: \"21\" || \"11\", \r\n            isAutoPlay:
    \"false\" || \"true\", \r\n            userId: \"69C21BB5705EDD63\" || \"\", \r\n
    videoid: videoid || \"\", \r\n            listId: listId || \"\", \r\n
    isHttps:true\r\n        };\r\n\r\n        judgePlay(playerElementId,
    params);\r\n    });\r\n</script>\r\n</body>\r\n</html>",

```

```
    "pullId": "",
```

```
    "swfCode":
```

```

    "https://cloudv.chinanetcenter.com/swf/player/69C21BB5705EDD63_287264e85a754da4927
    859d162c5f812_false_21/StrobeMediaPlayback.swf",

```

```
    "videoUrl": [
```

```
        {
```

```
            "pullProtocol": "RTMP",
```

```
"urlInfo": {  
  
    "fluentPullUrl":  
    "rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800",  
  
    "hdPullUrl":  
    "rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000",  
  
    "highPullUrl":  
    "rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000",  
  
    "originPullUrl":  
    "rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772",  
  
    "sdPullUrl":  
    "rtmp://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200"  
    }  
},  
  
{  
  
    "pullProtocol": "HDL",  
  
    "urlInfo": {  
  
        "fluentPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800.flv",  
  
        "hdPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000.flv",  
  
        "highPullUrl":  
        "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000.flv",  
  
        "originPullUrl":
```

```
"http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772.flv",  
  
    "sdPullUrl":  
  
    "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200.flv"  
  
    }  
  
    },  
  
    {  
  
        "pullProtocol": "HLS",  
  
        "urlInfo": {  
  
            "fluentPullUrl":  
  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_800/playlist.m3u8",  
  
            "hdPullUrl":  
  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_3000/playlist.m3u8",  
  
            "highPullUrl":  
  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_2000/playlist.m3u8",  
  
            "originPullUrl":  
  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772/playlist.m3u8",  
  
            "sdPullUrl":  
  
            "http://live.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772_1200/playlist.m3u8"  
  
        }  
  
    }  
  
}
```

```

    ]
  }
},
"message": "Request succeeded"
}

```

2.11 Push-stream timestamp anti-hotlinking configuring

2.11.1 Description

The timestamp anti-hotlinking can be configured for the push stream of a specified channel through this interface. This interface is only valid for push-stream domains which have configured the function of timestamp anti-hotlinking.

2.11.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/setPushTsa tc
If token is needed	Verification token is needed

2.11.3 Request parameters

Parameter name	Parameter type	If required	Description



pullId	string	Yes	Channel pull-stream ID
effectiveHourLong	string	Yes	Valid duration; configure the valid duration that is accurate to the second for anti-hotlinking parameters

2.11.4 Request example

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/setPushTsac \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullId=287264e85a754da4927859d162c5f812&effectiveHourLong=3600'

2.11.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded



message	string	No	Request succeeded
pushUrl	string	Yes	Push-stream URL

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.11.6 Response example

```
{
  "code": 200,
  "data": {
    "pushUrl":
"rtmp://livepush.ovptest.haplat.net/test1/d6f4f2c435864c3388bfba1833d6b772?wsRecord=
off&pusht=1501576770&pushKey=7a71f0b326d66876a5c5e24ae693fb7f"
  },
  "message": "Request succeeded"
}
```



2.12 New origin-stream-pulling channel

2.12.1 Description

With the service of pulling streams from origin being enabled, a live channel which pulls streams from origin can be created through the interface. When there is a player end request, the system will automatically pull the specified origin live stream through the interface.

2.12.2 Request specification

Request method **Post/get**

Interface address <http://api.cloudv.haplat.net/live/channelManage/createPullChannel>

If token is needed Verification token is needed

2.12.3 Request parameters

Parameter name	Parameter type	If required	Description
channelName	string	Yes	Channel name, up to 40 Chinese characters
sourcePullUrl	string	Yes	URL of pull stream from origin The system will pull the live stream as the live origin
sourcePullProtocol	string	Yes	Origin-stream-pulling protocol; one channel can have one and only one origin-stream-pulling protocol; and one origin-stream-pulling domain can only be used by



			channels using the same protocol to pull streams; 0:RTMP, 1:Http flv
pullDomain	string	Yes	Player streaming pulling domain; the domain must exist in the domain list at the cloud live service backend
pullProtocol	string	No	Protocol for player stream pulling; can choose multiple options and are separated by ";"; 0 by default and options 2/3 cannot be chosen at the same time; the protocol should be chosen from output protocols. 0、 RTMP, 1、 Http flv, 2、 HLS, 3、 HDS configured for the push-stream domain
pullRate	string	Yes	Player end pull-stream bitrate; multiple options available and are separated by ";"; make sure the chosen bitrate is within the transcoding bitrate range configured for the push-stream domain; 0: origin bitrate, 1: fluent, 2: standard-definition, 3: high-definition, 4: ultra-high definition
playerId	string	No	Flash player ID for channel; use the default player if not configured

2.12.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/createPullChannel \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d

'channelName=testSource&sourcePullUrl=rtmp%3A%2F%2Flive.ovptest.haplat.net%2Ftest1%
2F31be31f93b2c47ada887c20f41e2c53e&sourcePullProtocol=0&pullDomain=live.ovptest.ha
plat.net&pullProtocol=0%2C1%2C2&pullRate=0%2C1%2C2&playerId=8275B97428DC1438'
```

2.12.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Response status code; 200 represents the successful response
message	string	No	Request succeeded
pullId	string	Yes	Pull-stream ID which is unique and immutable

Error response



Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.12.6 Response example

```
{
  "code": 200,
  "data": {
    "pullId": "209ed41e22224994a282be86f7180ffa"
  },
  "message": "Request succeeded"
}
```

2.13 Origin-stream-pulling channel editing

2.13.1 Description

Through this interface, editing and modifying, such as changing the channel name and origin-stream-pulling URL, can be performed for specified BtO pull-stream channel that have been created.

Note: This interface can only configure channels which pull streams from the origin.

2.13.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/editPullChannel

If token is needed Verification token is needed

2.13.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Channel pull-stream ID
channelName	string	No	Channel name; up to 40 Chinese characters; by default, will not change if not filled in
sourcePullUrl	string	No	Origin-stream-pulling URL
sourcePullProtocol	string	No	Origin-stream-pulling protocol; one channel can have one and only one protocol to pull streams from origin; and one origin-stream-pulling domain can only be used by channels using the same protocol to pull streams from origin; 0: RTMP, 1: Http flv, 2: HLS, 3: HDS
pullRate	string	No	Player pull-stream bitrate; multiple options available and are separated



			by "; make sure the chosen bitrate is within the transcoding bitrate range configured for the push-stream domain; 0: origin bitrate, 1: fluent, 2: standard-definition, 3: high-definition, 4: ultra-high definition
--	--	--	--

2.13.4 Request example

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/editPullChannel \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441cca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d

'channelName=testSource&sourcePullUrl=rtmp%3A%2F%2Flive.ovptest.haplat.net%2Ftest1%2F31be31f93b2c47ada887c20f41e2c53e&sourcePullProtocol=0&pullRate=0%2C1%2C2&pullId=209ed41e22224994a282be86f7180ffa'

2.13.5 Response format

Successful response

Parameter	Parameter	If required	Description
-----------	-----------	-------------	-------------



name	type		
code	int	Yes	200, request succeeded
message	string	No	Request succeeded

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.13.6 Response example

```
{
  "code": 200,
  "data": {},
  "message": "Request succeeded"
}
```

2.14 Obtaining configs details of origin-stream-pulling channel

2.14.1 Description

Through this interface, the configuring details of a created origin-stream-pulling channel on the cloud video platform, such as the name, BtO pull-stream URL, pull-stream URL and so on,

can be obtained.

Note: this interface can only obtain configuring information of channels pulling streams from origin.

2.14.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/getPullChannelConfigure
If token is needed	Verification token is needed

2.14.3 Request parameters

Parameter name	Parameter type	If required	Description
pullid	string	Yes	Pull-stream ID; channel unique ID
format	string	No	Response data format; can be json or xml; json by default

2.14.4 Request example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/channelManage/getPullChannelConfigure \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
```



-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullId=209ed41e22224994a282be86f7180ffa'

2.14.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Successful response code, 200
message	string	No	Request succeeded
channelName	string	Yes	Channel name
channelStatus	string	Yes	Reserved field and will always return ""
createTime	string	Yes	Channel creation time, e.g. 2016-05-08 12:00:00
createUser	string	Yes	userName that created the channel
playerId	string	Yes	Flash player ID for the channel
sourcePullCon	array	Yes	Configuring information of origin-stream-pulling



figureInfoList			channel
The following is the configuring information array content of origin-stream-pulling channels			
sourcePullProtocol	string	Yes	Origin-stream-pulling protocol
sourcePullUrl	string	Yes	Origin-stream-pulling URL
pullConfigureList	array	Yes	Player end pull-stream configuring information list (pull-stream protocol, pull-stream URL)
The following is the configuring information of the player end pull-stream			
pullProtocol	string	Yes	Pull-stream protocol
pullUrlList	array	Yes	Pull-stream URL list
Parameters of the pullUrlList			
originPullUrl	string	No	URL of the origin bitrate pull stream
fluentPullUrl	string	No	URL of the fluent pull stream
sdPullUrl	string	No	URL of the standard-definition pull stream
highPullUrl	string	No	URL of the high-definition pull stream
hdPullUrl	string	No	URL of the ultra-high-definition pull stream

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.14.6 Response example

```

{
  "code": 200,
  "data": {
    "channelName": "testSource",
    "channelStatus": "",
    "createTime": "2017-08-01 16:50:26",
    "createUser": "ovptest",
    "playerId": "8275B97428DC1438",
    "sourcePullConfigureInfoList": [
      {
        "pullConfigureList": [
          {

```

```
"pullProtocol": "RTMP",

"pullUrlList": [

  {

    "fluentPullUrl":

"rtmp://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_800",

    "hdPullUrl": "",

    "highPullUrl": "",

    "originPullUrl":

"rtmp://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40",

    "sdPullUrl":

"rtmp://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_1200"

  }

]

},

{

  "pullProtocol": "HDL",

  "pullUrlList": [

    {

      "fluentPullUrl":

"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_800.flv",

      "hdPullUrl": "",
```

```
        "highPullUrl": "",
        "originPullUrl":
"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40.flv",
        "sdPullUrl":
"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_1200.flv"
    }
]
},
{
    "pullProtocol": "HLS",
    "pullUrlList": [
        {
            "fluentPullUrl":
"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_800/playlist.m3u8",
            "hdPullUrl": "",
            "highPullUrl": "",
            "originPullUrl":
"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40/playlist.m3u8",
            "sdPullUrl":
"http://live.ovptest.haplat.net/live/b851b51c3b7444589192b2dc97ee9b40_1200/playlist.m3u8"
        }
    ]
}
```

```
    }  
  ]  
}  
  
],  
  
  "sourcePullProtocol": "RTMP",  
  
  "sourcePullUrl":  
"rtmp://live.ovptest.haplat.net/test1/31be31f93b2c47ada887c20f41e2c53e"  
  
  }  
]  
  
},  
  
  "message": "Request succeeded"  
  
}
```

2.15 Batch obtaining of origin-stream-pulling channel list information

2.15.1 Description

Through this interface, the information of all created origin-stream-pulling channels, such as the channel name, pull-stream ID and creation time, can be obtained.

2.15.2 Request specification

Request method	Post/get
----------------	----------

Interface address <http://api.cloudv.haplat.net/live/channelManage/getPullChannelList>

If token is needed Verification token is needed

2.15.3 Request parameters

Parameter name	Parameter type	If required	Description
listOrder	int	No	Obtain the sort of the channel list; 0: Descending order by creation time, 1: Ascending order by creation time; 0 by default
pageIndex	int	No	Page number in the paged channel list; starting from 1; 1 by default
pageSize	int	No	Average number of channels per page; the value is between 1-50; 10 by default

2.15.4 Request example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/channelManage/getPullChannelList \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
```

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
 SignedHeaders=content-type;host,
 Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441cca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'listOrder=0&pageIndex=1&pageSize=2'

2.15.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200
message	string	No	Response status message
channelToal	int	Yes	Total number of channels
channelList	array	No	Channel list array
The following is the content of one channel in the channel list array			
channelName	string	Yes	Channel name
channelType	string	Yes	Channel type



sourcePullProtocol	string	Yes	Origin-stream-pulling protocol; RTMP, HTTP FLV
sourcePullUrl	string	Yes	Origin-stream-pulling URL
createTime	string	Yes	Channel creation time, e.g. 2015-05-07 12:00:00
userId	string	Yes	user ID created the channel
pullId	string	Yes	Pull-stream ID

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.15.6 Response example

```
{
  "code": 200,
  "data": {
    "channelList": [
      {
```



```
    "channelName": "testSource",

    "channelType": "live",

    "createTime": "2017-08-01 16:50:26",

    "pullId": "209ed41e22224994a282be86f7180ffa",

    "sourcePullProtocol": "RTMP",

    "sourcePullUrl":
"rtmp://live.ovptest.haplat.net/test1/31be31f93b2c47ada887c20f41e2c53e",

    "userId": "110041"
  },
  {

    "channelName": "bk1j5udtn2",

    "channelType": "live",

    "createTime": "2017-08-01 06:34:15",

    "pullId": "6817253fb96b4a00b8c300812543eac6",

    "sourcePullProtocol": "RTMP",

    "sourcePullUrl":
"rtmp://livehls.ovptest.haplat.net/test1/ba4ff28af7c447ee963717f2f626233b",

    "userId": "110041"
  }
],

"channelTotal": 218
```

```

  },

  "message": "Request succeeded"

}

```

2.16 Interface for real-time feedback of channel status

2.16.1 Description

The function of real-time feedback of channel status can be enabled/disabled through this interface. The interface can also configure the status callback address. The cloud video background will send a GET request to the callback address through the HTTP interface and response users with the statuses of successful stream pushing and successful stream interruption in real time.

2.16.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/setChannelStateRealtimeBack
If token is needed	Verification token is needed

2.16.3 Request parameters

Parameter name	Parameter type	If required	Description
domainName	string	Yes	Push-stream domain; need to be push-stream domains that have enabled the function of



			channel status callback
notifyUrl	string	Yes	Callback address, lower-case, start with http:// or https://
open	int	No	1: enable, 0: disable; 1 by default

2.16.4 Response format

Parameter name	Parameter type	If required	Description
code	int	Yes	Response status code; 200 for the successful response
message	string	No	Request succeeded

For example:

```
{
  "code": 200,
  "data": "",
  "message": "Request succeeded"
}
```

2.16.5 Response information from callback interface



1. Notification interface defining:

notifyUrl?channelName=channel name & pushDomain= push-stream domain & channelType= application name & pushId=stream name & pullId=pull-stream ID & channelState=channel live status (1:live streaming 2:not started yet 3:banned) ×tamp= timestamp of event occurred in millisecond

2. User server response rules:

a. After receiving the notification message successfully, the user server should return response code 200 as well as the following json string, otherwise, it will be considered as notification message transfer failed. The message will be sent again.

```
{"success": "1"}
```

Response: 1 and 0 represents success and failure, respectively.

b. The notification message will be resent, up to 5 times by default, when the initiator does not receive the response in 20s. The max duration of timeout or indicating transmission failure and the times of retransmissions are configurable via backend support team.

2.16.6 Error codes

Error code	Description
900	Internal error
1001	Token error
1002	timeStamp,token or userId cannot be empty



1003	Incorrect userId
1004	Parameter error; make sure all required items are filled in
1007	No authority to request for the API
1012	Parameter value is out of legal range
1212	Did not find the corresponding domain
1554	Incorrect notifyUrl parameter format

2.16.7 Usage example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/setChannelStateRealtimeBack \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
```

```
SignedHeaders=content-type;host,
```

```
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d
```

```
'userId=110036&token=e7758628815d633f35af4d80b431a097&timeStamp=1486968639&do  
mainName=livepush.ovptest.haplat.net&notifyUrl=http://www.baidu.com/test&open=1'
```


2.16.8 Response example

```
{  
  
  "code": 200,  
  
  "data": "",  
  
  "message": "Request succeeded"  
  
}
```

2.17 Live recording task creation

2.17.1 Description

By creating a live recording task through this interface, all the live events of the specified channel will be recorded and saved during the specified time period. For the live recording task that belongs to a channel of the BtO pull-stream mode, if the task cannot be performed due to the inability to pull the stream, it will be retried up to 9 times after the task starts. If the last recording retry fails, no more retry will be initiated before the scheduled recording end time.

Normally, live recording will be interrupted when steamer side sending RTMP STOP FLAG message. In some particular situations, such as switching of interactive streams, requires consistent recording even if the RTMP STOP FLAG message has been sent, please use http pull recording and you may refer to parameter "httpPullRecord" for details.

2.17.2 Request specification

Request method	Post/get
----------------	----------

Interface address <http://api.cloudv.haplat.net/live/channelManage/createRecordTask>

If token is needed Verification token is needed

2.17.3 Request parameters

Parameter name	Parameter type	If required	Description
pullId	string	Yes	Channel pull-stream ID; if the pullID has any started or starting tasks, its task cannot be added again
transNo	string	No	Business ID; users need to control the uniqueness; it is recommended to use a 32-byte UUID; the maximum is a 32-byte string
quickStart	boolean	Yes	Whether to start recording immediately; true: immediate start, false: timed start; when the parameter value is true, the startRecordTime must not be passed or be a null character string
startTime	int	No	Scheduled recording starting time; the format is second timestamp, e.g. 1502438820; when involved in the program calculation, the extra seconds will be removed automatically to the minute; it is only accurate to minute; the recording start time (accurate to minute) must be greater than the current time; this parameter



			is required when the value of quickStart is false.
endTime	int	Yes	<p>Scheduled recording end time, required; the format is second timestamp, e.g. 1502438880; when involved in the program calculation, the extra seconds will be removed automatically to the minute; it is only accurate to minute;</p> <p>After the time becomes accurate to minute, the recording end time must be greater than the current time and the start time after the accuracy becomes minute; after the time becomes accurate to minute, the maximum interval between the start time and the end time cannot exceed 72 hours; there would be a small amount of error between the recorded video duration and the scheduled recording time.</p>
notifyUrl	string	No	User custom notification address; must start with http:// or https://
fileType	string	No	Recording file format; mp4 by default; can also be flv or m3u8; the value is in lowercase
isConcat	boolean	No	If to merge into one video; false by default; if true, the filetype must be m3u8, otherwise a parameter error will be triggered.



isRecordWhite Board	boolean	No	<p>If to record whiteboard; "true" indicates that the whiteboard information will be recorded as well while recording the video, but whiteboard recording on BtO pull-stream is not supported. False by default if it is not configured. The whiteboard recording ends when the live recording task is terminated or ends normally. This parameter is not applicable to origin-stream-pulling channels.</p>
isRecordIm	boolean	No	<p>If to record chat room content while recording video; "true" means that the chat room content is recorded while recording the video. This function is not supported for BtO pull-stream channels. If not filled in, the default is false. The chat room content recording ends when the live recording task is terminated or ends normally.</p>
httpPullRecord	boolean	No	<p>The value is False by default. When it is set as True, http pull recording will be enabled for live recording. Details as follow:</p> <ol style="list-style-type: none"> 1. By checking the configuration of pull stream domain to decide to pull stream via http or https. 2. Encapsulation protocol determine. The default protocol to pull stream will be HDL Or it can be HLS if HLS is the only supported protocol. And error will be occurred when both HDL and HLS are not being setup. Error



			messages and tips will be returned – the HDL or HLS output need to be setup for the pull domain.
key	string	No	Specifying the storage path(exclude file extension) for recording using third-party storage.

2.17.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/createRecordTask \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d
```

```
'transNo=N01&pullId=5df32989b7db47368cc14571ba296c04&quickStart=false&startTime=1  
502417100&endTime=1502420700&fileType=m3u8&isConcat=false&isRecordWhiteBoard=tr  
ue &isRecordIm=true&notifyUrl=Custom URL'
```

2.17.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200
message	string	No	Request succeeded
taskId	string	Yes	ID of the live recording task

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

Customer notification content:

By the scheduled recording start time, notifications will be sent to the notifyUrl customized by the customer. The content of the notification is consistent with that obtained through the query interface of recording call status. At this point, the video content is empty, and the task status has started.

When the recording task is terminated or ends normally, and the recorded files are all processed, the notification about the recorded files will automatically be sent to the notifyUrl customized by the customer. The notification timeout period is 30S, and the number of retries is 3. The content of the notification is consistent with that obtained through the query interface of recording call status.

For example:

```
curl -X POST \  
  
http://customer notifyUrl \  
  
-H 'cache-control: no-cache' \  
  
-d '{  
  
  "code": 200,  
  
  "data": {  
  
    "fileList": [  
  
      {  
  
        "videoId": "065c4f4f461efd60e0be9f4942820428",  
  
        "fileName": "ST622_80No2Cut_201706221121-20170622142118.mp4",  
  
        "fileSize": "25534560",  
  
        "videoDuration": "2258",  
  
        "fileUrl": "http:// specific path of the file "  
  
      },
```

```
{  
  
  "fileKey": "2b6d8bd527837357b96ff91e7eda61d9",  
  
  "fileName": "ST622_80No2Cut_201706221221.mp4",  
  
  "fileSize": "12723450",  
  
  "videoDuration": "1120",  
  
  "fileUrl": "http:// specific path of the file "  
  
}  
  
],  
  
  "transNo": "NO1",  
  
  "taskId": "209ed41e22224994a282be86f7180ffb ",  
  
  "status": 3  
  
},  
  
  "message": "Request succeeded"  
  
}  
  
,
```

2.17.6 Response example

```
{  
  
  "code": 200,  
  
  "data": "{  
  
    "taskId": "209ed41e22224994a282be86f7180ffb"  
  
  }  
}
```



```

  }",
  "message": "Request succeeded"
}

```

2.17.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items are filled in
1007	No authority to request for live API
1337	Task corresponding to the pullId already exists, please do not add it repeatedly.
1338	Live recording failure
1339	Channel corresponding to the pullId has been banned; please re-enter
1217	Channel pull-stream Id does not exist
1000	Parameter error

2.18 Live recording task terminating

2.18.1 Description

Through this interface, the live recording task can be terminated in real time.

2.18.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/channelManage/endRecordTask
If token is needed	Verification token is needed

2.18.3 Request parameters

Parameter name	Parameter type	If required	Description
taskId	string	Yes	ID of the live recording task

2.18.4 Request example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/channelManage/endRecordTask \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
  -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```



```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d 'taskId=5df32989b7db47368cc14571ba296c04'
```

2.18.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded
message	string	No	Request succeeded

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.18.6 Response example

```
{
  "code": 200,
  "data": ""
```

```
"message": "Request succeeded"
}
```

2.18.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items are filled in
1007	No authority to request for live API
1631	Live recording task has been terminated or finished
1000	Parameter error

2.19 Query recording status

2.19.1 Description

Users can obtain the recording status information through the query interface for callback and recording status.

2.19.2 Request specification

Request method	Post/get
-----------------------	-----------------

Interface address <http://api.cloudv.haplat.net/live/channelManage/recordTaskQuery>

If token is needed Verification token is needed

2.19.3 Request parameters

Parameter name	Parameter type	If required	Description
taskId	string	No	ID of live recording task
transNo	string	No	Custom task number passed by the customer; transNo and taskId have at least one value that is not empty or an empty string. If both are passed, only taskId is used as the query condition.

2.19.4 Request example

curl -X POST \

<https://api.cloudv.haplat.net/live/channelManage/recordTaskQuery> \

 -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

 -H "Host: api.cloudv.haplat.net" \

 -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
 SignedHeaders=content-type;host,
 Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

 -H "X-WS-Timestamp: 1559557864" \

 -H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'taskId=4645ca2d015a1000ad64820400000000'

2.19.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	200, request succeeded
status	int	No	Recording task status; 0: not started, 1: started, 2: ends normally, 3: terminated
transNo	string	No	Custom task number passed by the customer
taskId	string	Yes	ID of live recording task
fileList	array	No	Recorded file list
The following is the recorded file list array content			
fileName	string	No	Channel name
videoid	string	No	Video ID
fileSize	double	No	Video size
videoDuration	float	No	Video duration
fileUrl	string	No	URL of recorded file. If the recording directory management value-added service is enabled, the



			recording file will be saved to the recording directory corresponding to the channel.
--	--	--	---

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Error response code
message	string	No	Error response message

2.19.6 Response example

```
{
  "code": 200,
  "data": {
    "fileList": [
      {
        "videoid": "065c4f4f461efd60e0be9f4942820428",
        "fileName": "ST622_80No2Cut_201706221121-20170622142118.mp4",
        "fileSize": "25534560",
        "videoDuration": "2258",
        "fileUrl": "http://specific file path"
      }
    ]
  }
}
```

```

    },

    {

        "videoid": "2b6d8bd527837357b96ff91e7eda61d9",

        "fileName": "ST622_80No2Cut_201706221221.mp4",

        "fileSize": "12723450",

        "videoDuration": "1120",

        "fileUrl": "http://specific file path "

    }

],

"transNo": "NO1",

"taskId": "4645ca2d015a1000ad64820400000000",

"status": 3

},

"message": "Request succeeded"

}

```

2.19.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items are filled in

1007	No authority to request for live API
1000	Parameter error

2.20 New recording directory

2.20.1 Description

The live video of the channel will be stored under the new recording directory created by this interface if the channel has specified the new directory.

2.20.2 Request specification

Request method Post/get

Interface address <http://api.cloudv.haplat.net/live/recordDirectoryManage/directoryCreate>

If token is needed Verification token is needed

2.20.3 Request parameters

Parameter name	Parameter type	If required	Description
directoryType	string	Yes	Directory type; only supports Chinese characters, uppercase and lowercase letters, numbers and underlines; no more than 40 fields; duplicate directory names cannot be used by the same user



firstLevelDirectory	string	Yes	First-level directory; cannot start with cloudv or cloudv-; cannot be more than 128 fields; only supports lowercase letters, numbers and strikethroughs; cannot be the same with the following reserved word: video, live, pullvideo, clip, concat, watermark, logo, buffer, record, static and ad.
secondLevelDirectory	string	No	Second-level directory; cannot start with cloudv or cloudv-; cannot be more than 128 fields; only supports lowercase letters, numbers and strikethroughs;
thirdLevelDirectory	string	No	Third-level directory; cannot start with cloudv or cloudv-; cannot be more than 128 fields; only supports lowercase letters, numbers and strikethroughs;

2.20.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/recordDirectoryManage/directoryCreate/ \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```



-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'directoryType=%E4%B8%AD%E6%96%87_ABC_abc_123&firstLevelDirectory=movie-1&secondLevelDirectory=movie-2&thirdLevelDirectory=movie-3'

2.20.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Response status code; 200 indicates a successful response
directoryId	string	Yes	ID of recording directory
directoryType	string	Yes	Directory type
firstLevelDirectory	string	Yes	First-level directory
secondLevelDirectory	string	No	Second-level directory
thirdLevelDirectory	string	No	Third-level directory
creatTime	string	Yes	Recording directory creation time
updateTime	string	Yes	Recording directory modification time

Error response



Parameter name	Parameter type	If required	Description
code	string	Yes	Not 200; error response code to be confirmed
message	string	No	Response message corresponding to specific code

2.20.6 Response example

```
{
  "code": 200,
  "data": {
    "createTime": "1494322903",
    "directoryId": "ec95fb54015b10005ec7318200000000",
    "directoryType": "中文_ABC_abc_123",
    "firstLevelDirectory": "movie-1",
    "secondLevelDirectory": "movie-2",
    "thirdLevelDirectory": "movie-3",
    "updateTime": "1494322903"
  },
  "message": "Request succeeded"
}
```

2.20.7 Relevant error codes

Error code	Description
900	Internal error
1004	Parameter error, make sure all required items are filled in
1007	No authority to request for live api
1611	Value-added service of recording directory management is not enabled
1612	Directory type cannot be empty
1613	Directory type cannot exceed 40 characters
1614	Directory type only supports Chinese characters, uppercase and lowercase letters, numbers and underlines
1615	Directory type already exists, please re-enter
1616	First-level directory cannot be empty
1617	First-level directory only supports lowercase letters, numbers and strikethroughs
1618	First-level directory cannot exceed 128 characters
1619	Second-level directory only supports lowercase letters, numbers and strikethroughs

1620	Second-level directory cannot exceed 128 characters
1621	Third-level directory only supports lowercase letters, numbers and strikethroughs
1622	Third-level directory cannot exceed 128 characters
1623	If second-level directory is not filled in, no characters can be input for third-level directory
1624	First-level directory name cannot be the same with the reserved word
1625	First-level, second-level or third-level directory cannot start with cloudv or cloudv-

2.21 Obtaining recording directory list

2.21.1 Description

Obtain the recording directory list through this interface.

2.21.2 Request specification

Request method	Post/get
Interface address	http://api.cloudv.haplat.net/live/recordDirectoryManage/getDirectoryList
If token is needed	Verification token is needed

2.21.3 Request parameters

Parameter name	Parameter type	If required	Description
pageIndex	int	No	Page number; 1 by default
pageSize	int	No	Number of directories per page; 10 by default; the value is between 1 and 50

2.21.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/recordDirectoryManage/getDirectoryList \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441cca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d 'pageIndex=1&pageSize=10'
```

2.21.5 Response format

Successful response

Parameter	Parameter	If required	Description
-----------	-----------	-------------	-------------



name	type		
code	int	Yes	Response status code, 200 represents a successful response
totalCount	int	Yes	Total number of recording directories
recordDirectoryList	array	Yes	Returned recording directory list information
The following is the information of each recording directory field; recording directories are separated by {} (the default format is json)			
directoryId	string	Yes	ID of recording directory
directType	string	Yes	Directory type
firstLevelDirectory	string	Yes	First-level directory
secondLevelDirectory	string	No	Second-level directory
thirdLevelDirectory	string	No	Third-level directory
creatTime	string	Yes	Creation time of recording directory
updateTime	string	Yes	Update time of recording directory



Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Not 200
message	string	Yes	response message corresponding to specific code

2.21.6 Response example

```
{
  "code": 200,
  "data": {
    "directoryList": [
      {
        "createTime": "1494323009",
        "directoryId": "ec9797bc015b1000e87f2c2800000000",
        "directoryType": " Chinese characters _ABC_abc_321",
        "firstLevelDirectory": "movie-1",
        "secondLevelDirectory": "movie-2",
        "thirdLevelDirectory": "movie-3",
        "updateTime": "1494323009"
      }
    ],
  },
}
```

```
{
  "createTime": "1494322903",
  "directoryId": "ec95fb54015b10005ec7318200000000",
  "directoryType": " Chinese characters _ABC_abc_123",
  "firstLevelDirectory": "movie-1",
  "secondLevelDirectory": "movie-2"
  "thirdLevelDirectory": "movie-3",
  "updateTime": "1494322903"
}
],
"totalCount": 2
},
"message": " Request succeeded"
}
```

2.21.7 Relevant error codes

Error code	Decsription
900	Internal error
1004	Parameter error, make sure all required items are filled in

1007	No authority to request for live api
1322	pageIndex can only be an integer greater than 0
1323	pageSize can only be an integer between 1 and 50
1324	pageIndex value is too large
1331	pageIndex cannot exceed the integer size
1611	Value-added service of recording directory management is not enabled

2.22 Obtaining of single recording directory Information

2.22.1 Description

Obtain the information of a specified recording directory through this interface.

2.22.2 Request specification

Request method **Post/get**

Interface address <http://api.cloudv.haplat.net/live/recordDirectoryManage/getDirectory>

If token is needed Verification token is needed

2.22.3 Request parameters



Parameter name	Parameter type	If required	Description
directoryId	string	Yes	ID of the recording directory from which the directory information is obtained

2.22.4 Request example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/recordDirectoryManage/getDirectory \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

```
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,  
SignedHeaders=content-type;host,  
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
```

```
-H "X-WS-Timestamp: 1559557864" \
```

```
-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
```

```
-d 'directoryId=ec8f50eb015b100048a28c5800000000'
```

2.22.5 Response format

Successful response

Parameter name	Parameter type	If required	Description
code	int	Yes	Response status code, 200 represents the



			successful response
directoryId	string	Yes	ID of recording directory
directType	string	Yes	Directory type
firstLevelDirectory	string	Yes	First-level directory
secondLevelDirector y	string	No	Second-level directory
thirdLevelDirectory	string	No	Third-level directory
creatTime	string	Yes	Creation time of recording directory
updateTime	string	Yes	Update time of recording directory

Error response

Parameter name	Parameter type	If required	Description
code	int	Yes	Not 200, error response code to be determined
message	string	Yes	Response prompt message corresponding to the specific code

2.22.6 Response example

```
{
```

```
  "code": 200,
```

```
"data": {
  "createTime": "1494324233",
  "customerId": 160612,
  "directoryId": "eca13602015b1000c8d39dbf00000000",
  "directoryName": "Chinese characters_ABC_abc_321",
  "firstLevelDirectory": "abc",
  "id": "eca13602015b1000c8d39dbf00000000",
  "secondLevelDirectory": "movie-2",
  "thirdLevelDirectory": "movie-3",
  "updateTime": "1494324233"
},
"message": "Request succeeded"
}
```

2.22.7 Relevant error code

Error code	Description
900	Internal error
1001	Token error
1002	Timestamp, token, userId can not be empty



1003	UserId input error
1004	Parameter error; make sure all required items are filled in
1007	No authority to request for live api
1010	Please input correct timestamp
1011	Timestamp has expired (validity 5 mins), please input again
1000	Parameter error; parameter empty or type error
1626	Directory Id cannot be empty
1627	Illegal directory Id
1628	Directory Id does not exist or has been deleted, or does not belong to your scope of authority
1611	Value-added service of recording directory management is not enabled

2.23 Obtain live sharing page URL

2.23.1. Description

Obtain live sharing page URL

2.23.2. Request Specification

Request	Get
----------------	------------

Method

Interface Address [http/https]://api.cloudv.haplat.net/live/channelManage/getChannelShare
 Url/

If token is needed? Token authentication is needed

2.23.3 Request Parameter

Parameter Name	Type	Required	Description
pullId	String	Yes	Pull-stream ID of channel

2.23.4 Request Example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/channelManage/webPush \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
  -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
  -H "X-WS-Timestamp: 1559557864" \
  -H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
  -d 'pullId=aadde9ed3ae64d4386c5fb3319d56e4e'
```


2.23.5 Response Format

successful response

Parameter Name	Type	If required	Description
code	int	Required	Response status code, 200 demonstrates success and refer to the form below for the response code specification
message	string	Not required	Request succeeded
data	string	Required	Sharing page URL

2.23.6. Response Example

```
{
  "code": 200,
  "data": "http://share.cloudv.haplat.net/live-share/aadde9ed3ae64d4386c5fb3319d56e4e",
  "message": "Request succeeded"
}
```

2.23.7 Custom audience parameter splicing instructions

After obtaining URL, we can splice the following viewer info:



Parameter	Type	Required field	Description
nickname	string	No	Viewer's nickname (encryption required)
viewerId	string	No	Viewer Identification(encryption required)

Parameter encryption method will be AES, details as below:

- 1、Encryption Mode: AES/ECB
- 2、Filler: PKCS5Padding
- 3、Data block size: 128 Bytes
- 4、Encryption secretkey(password): take the first 16 digits of client key, add 0 if less than 16 digits.
- 5、Offset: 1234567890123456 (No need to specify this parameter under ECB mode)
- 6、Character set: utf-8
- 7、Output format: hex (Hexidecimal)

For example, nickname original value is cloudv, the obtained customer key(secretKey) on platform is: 1234567890abcdef1234567890abcdef, then the corresponding first 16 digits of the secretKey is:1234567890abcdef, the token after encryption is:
0b2a5b68c60a70759a40a4ba07fc36cc

Encryption result can be verified on: <http://tool.chacuo.net/cryptaes>

URL after splicing: <http://share.cloudv.haplat.net/live-share/aadde9ed3ae64d4386c5fb3319d56e4e?nickname=0b2a5b68c60a70759a40a4ba07fc36cc> &viewerId= 0b2a5b68c60a70759a40a4ba07fc36cc

2.23.8. Error codes

Response code	Description
900	Internal error
1004	Error parameter. Please make sure all the required-fields have been filled.

2.24 Obtain recorded file info

2.24.1. Description

Obtain live recording file information. Return web page push-stream recording and the recording file information generated by 2.19 Live recording task creation.

2.24.2. Request Specification

Request Method	Post/get
Interface Address	[http/https]://api.cloudv.haplat.net/live/channelManage/getRecordFileInfo/
If token is needed?	Token authentication is needed

2.24.3 Request Parameter



Parameter Name	Type	Required	Description
pullIds	String	No	At least 1 channel ID, and separate with half-angle comma(.). It is required that the input should be figure, upper and lower case, half angle comma, or it will be treated as illegal string. If the input is null string, it will not be treated as illegal string, but as empty parameter. pullIds should not be all comas. The channel ID number of plllIds should not exceed 50. One and only one parameter from pullIds and videolds should not be empty.
videolds	String	No	At least 1 channel ID, and separate with half-angle comma(.). It is required that the input should be figure, upper and lower case, half angle comma, or it will be treated as illegal string. If the input is null string, it will not be treated as illegal string, but as empty parameter. pullIds should not be all comas. The channel ID number of plllIds should not exceed 50. One and only one parameter from pullIds and videolds should not be empty.

2.24.4. Request Example

```
curl -X POST \
```

```
https://api.cloudv.haplat.net/live/channelManage/getRecordFileInfo \
```

```
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
```

```
-H "Host: api.cloudv.haplat.net" \
```

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
 SignedHeaders=content-type;host,
 Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullIds=aadde9ed3ae64d4386c5fb3319d56e4e,badde9ed3ae64d4386c5fb3319d56e4f'

2.24.5. Response Format

successful response

Parameter Name	Type	If required	Description
code	int	Required	Response status code, 200 demonstrates success and refer to the form below for the response code specification
message	string	Not required	Request succeeded
list	Array	Not required	File list
Below is information of one file from file list array			
pullId	string	Required	Channel pull-stream ID
videoId	string	Required	Video ID



videoName	string	Required	Video name
startTime	int	Required	Start time of recording
videoDuration	int	Required	Recording duration
password	string	Not required	Password for viewing
sharePageUrl	string	Not required	Sharing page URL. It is empty when it is a encrypted trans-coding video sharing page.

2.24.6. Response Example

```
{
  "code": 200,
  "data": {
    "list": [
      {
        "password": "123456",
        "pullId": "8ddb9499d5af4746a75e82677df950d1",
        "sharePageUrl": "http://share.cloudv.haplat.net/ vod-
share/d82c27ada710c0cb298c8972735f903b",
        "startTime": 1526388195,
        "videoDuration": 23,
```

```

        "videoId": "d82c27ada710c0cb298c8972735f903b",

        "videoName": "no1_201805152044"

    },

    {

        "password": "",

        "pullId": "8ddb9499d5af4746a75e82677df950d1",

        "sharePageUrl": "",

        "startTime": 1526368474,

        "videoDuration": 26,

        "videoId": "6d38b8a7351edc4a2f9bf8b609ebbf7d",

        "videoName": "no1_201805151515"

    }

]

},

"message": "Request succeeded"

}

```

2.24.7 Error Codes

Response codes	Description



900	Internal error
1000	Error parameter
1004	Error parameter. Please make sure all the required-fields have been filled.
1008	No permission to request for live api

2.25 Live stream suspending

2.25.1 Description

Call this API to suspend the stream for once. If the channel is in broadcasting, it is expected to see “disconnected from server” and need to re-push the stream to recover the broadcasting. Please note that this API is not suitable for pulling streams from origin scenarios.

2.25.2 Request descriptions

Request Method	Post/get
API URL	https://api.cloudv.haplat.net/live/channelManage/disconnectStream
Token Required	Token is required for authentication

2.25.3 Request Parameter

Parameter	Type	Required field	Description
-----------	------	----------------	-------------

pullId	string	YES	Channel pull stream ID, the only identification of channel
--------	--------	-----	--

2.25.4 Request Sample

curl -X POST \

https://api.cloudv.haplat.net/live/channelManage/disconnectStream \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'pullId=41b6713a25994bfc14a91241c40c4ea'

2.25.5 Returned Data Format

Succeeded

Parameter	Type	Required field	Description
Code	int	YES	200, operation succeeded
message	string	NO	Succeed

Failed



Parameter	Type	Required field	Description
code	int	YES	Error Status Code.
message	string	NO	Error Status Code description.

2.25.6 Returned Data Sample

```
{
  "code": 200,
  "data": "",
  "message": "Succeeded"
}
```

2.26 Callback of live recording (Immediate recording)

2.26.1 Description

Obtaining the callback contents of live recording via this callback configuration.

2.26.2 Request description

Request Method	Null
API URL	Null
Token Required	Null

2.26.3 Request Parameter

Parameter	Type	Required field	Description
-----------	------	----------------	-------------

2.26.4 Request Sample

null

2.26.5 Returned Data Format

Succeeded

Parameter	Type	Required field	Description
eventId	string	YES	Callback event id
eventCode	string	YES	Callback event code
data	string	YES	Callback event details
The following items are data fields			
videoid	string	YES	Video ID
fileName	string	YES	Video Name
fileSize	long	YES	Video size
videoDuration	Int	YES	Video duration
fileFullUrl	string	YES	Video file path



pullId	string	YES	Channel
--------	--------	-----	---------

Failed

Parameter	Type	Required field	Description
code	int	YES	Error Status Code.
message	string	NO	Error Status Code description.

2.26.6 Returned Data Sample

```
{
  "eventCode": "wcsDirectRecordCallback",
  "eventId": "3f180211016d1000350c769c00000000",
  "data": {
    "videoId": "712dd31a82c7de9554b0e70eb9280beb",
    "fileName": "test_20191112193202",
    "fileSize": 1927482,
    "videoDuration": 17.0,
    "fileFullUrl": "https://ovptest.haplat.net/newRecord/live-
e96ece75eb5d436fb7d427f2ee928145-20191112193203.mp4",
    "pullId": "922efc3328184f87a57f25382f0ea8b5"
  }
}
```



2.27 Create VoD streaming tasks

2.27.1 Description

Create VoD Streaming tasks

2.27.2 Description

Request Method **Post**

API URL [http/https]://api.cloudv.haplat.net/live/forwardTask/startForwardTask

Token Required Token is required for authentication

2.27.3 Request Parameter

Parameter	Type	Required field	Description
pullId	string	YES	Pull Stream ID of Cloud Live Channel. Source of the content to be streamed.
forwardUrl	string	YES	Push-stream URL, support RTMP only. Destination of the content to be streamed.
startTime	int	NO	Scheduled start time; second-level time stamp; when the start time is smaller than the current time, the VoD streaming task starts immediately.
endTime	int	NO	Scheduled end time; second-level time



			stamp; the end time must be 5 mins later than the start time and the current time.
codingParams	string	NO	Transcoding parameters, including bitrate, resolution, frame rate, encoding method, and watermark. For details, please refer to the description of codingParams. The format is json.
notifyUrl	string	NO	Customized notification URL, start with http:// or https://.

codingParams's json format description:

bitrate	int	NO	Bitrate, the unit is kbps, e.g. 800
resolution	string	NO	Resolution, e.g. 420x720 ("x" is lowercase)
frameRate	int	NO	framerate, e.g. 25
vcodec	string	NO	libx264, support: libx264, libx265, libvpx. When watermark is needed, then it is libx264.
acodec	string	NO	libfaac, support: libmp3lame, libfaac, libvorbis.
wmimage	string	NO	The URL of image for watermark : if the url contains &, escaping is needed. Wmposition is mandatory required when



			wmimage has an input.
wmposition	string	NO	<p>Position of watermark. Wmposition is mandatory required when wmimage has an input.</p> <p>TOP_LEFT</p> <p>TOP_CENTER</p> <p>TOP_RIGHT</p> <p>CENTER_LEFT</p> <p>CENTER</p> <p>CENTER_RIGHT</p> <p>BOTTOM_LEFT</p> <p>BOTTOM_CENTER</p> <p>BOTTOM_RIGHT</p>

notifyUrl notification is sent in a POST request, content-type: application/json.

Callback content is the same as the data element of VoD Streaming task list, e.g.

```
{
  "codingParams": {
    "acodec": "libmp3lame",
    "bitrate": 1200,
    "frameRate": 25,
    "resolution": "420x720",
```

```
"vcodec": "libx264",  
  
"wmimage": "https://www.baidu.com/img/bd_logo1.png",  
  
"wmposition": "TOP_CENTER"  
  
},  
  
"createTime": 1576050276,  
  
"createUser": "ovptest",  
  
"startTime": 1576050276,  
  
"endTime": 1576060276,  
  
"taskId": "f3eab758016e100012febb9700000000",  
  
"notifyUrl": "http://testcallback.com/call.do",  
  
"pullId": "5fc304b8ed704e0fb0a415d613f5811b",  
  
"status": 3  
  
}
```

2.27.4 Request Sample

```
curl -X POST \  
  
https://api.cloudv.haplat.net/live/forwardTask/startForwardTask \  
  
-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \  
  
-H "Host: api.cloudv.haplat.net" \  
  
-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
```


SignedHeaders=content-type;host,

Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d

'pullId=5fc304b8ed704e0fb0a415d613f5811b¬ifyUrl=http%3A%2F%2Ftestcallback.com%2Fcall.do&forwardUrl=rtmp%3A%2F%2Flivepush.ovptest.haplat.net%2Flive%2Fde9e8c6834244637aa52aa993e2ed9f6'

2.27.5 Detail of Response

Success response

Parameter	Type	Required field	Description
code	int	YES	Status code, 200 means succeeded
message	string	YES	Operation succeeded
data	obj	YES	Returned data

Data format

Parameter	Type	Required field	Description
taskId	string	YES	VoD Streaming task ID

Error response

Parameter	Type	Required field	Description
-----------	------	----------------	-------------



code	int	YES	Error status code
message	string	YES	Error status code description

2.27.6 Response Sample

```
{
  "code": 200,
  "data": {
    "taskId": "f3eab758016e100012febb9700000000"
  },
  "message": "Operation succeeded"
}
```

2.27.7 Error code

Code	Description
900	Internal error
1000	Parameter error
1004	Parameter error. Please make sure all required items are filled out.
1008	No authority to call the live API

2.28 Stop VoD streaming tasks

2.28.1 Description

Stop VoD Streaming task.

2.28.2 Request Description

Request Method	Post
API URL	[http/https]://api.cloudv.haplat.net/live/forwardTask/endForwardTask
Token Required	Token is required for authentication

2.28.3 Request Parameter

Parameter	Type	Required field	Description
taskId	string	YES	ID of the VoD Streaming task

2.28.4 Request Sample

```
curl -X POST \
  https://api.cloudv.haplat.net/live/forwardTask/endForwardTask \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
```



-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'taskId=f37cf970016e1000577ce45400000000'

2.28.5 Response Format

Success response

Parameter	Type	Required field	Description
code	int	YES	Status code, 200 means succeeded
message	string	YES	Operation succeeded

Error response

Parameter	Type	Required field	Description
code	int	YES	Error status code
message	string	YES	Error status code description

2.28.6 Response Sample

```
{
  "code": 200,
  "data": "",
  "message": "Operation succeeded"
}
```

2.28.7 Error code

Code	Description
900	Internal error
1000	Parameter error
1004	Parameter error. Please make sure all required items are filled out.
1008	No authority to call the live API

2.29 Query a list of VoD streaming tasks

2.29.1 Description

Query a VoD Streaming task list.

2.29.2 Request Description

Request Method	Post
API URL	[http/https]://api.cloudv.haplat.net/live/forwardTask/getForwardTask

List

Token Required Token is required for authentication

2.29.3 Request parameter

Parameter	Type	Required field	Description
pullId	string	NO	Pull Stream ID of Cloud Live Channel.
taskId	string	NO	VoD Streaming task ID
status	string	NO	VoD Streaming task status. This is used to filter tasks, and the value includes: 0: Pending; 1: Processing; 2: Success; 3: Fail. Support more than one value, separated by a comma ",".
pageIndex	int	NO	Start obtaining task list from which page. The value starts from 1. And the default is 1.
pageSize	int	NO	Number of VoD Streaming task on each page. The value ranges from 1 to 50. And the default is 10.

2.29.4 Request Sample

```
curl -X POST \
```



```

https://api.cloudv.haplat.net/live/forwardTask/getForwardTaskList \

-H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \

-H "Host: api.cloudv.haplat.net" \

-H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682,
SignedHeaders=content-type;host,
Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \

-H "X-WS-Timestamp: 1559557864" \

-H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \

-d 'taskId=f3eab758016e100012febb9700000000'

```

2.29.5 Response Format

Success response

Parameter	Type	Description
total	int	Number of the tasks recorded in the task list.
forwardTastList	array	VoD Streaming task list info

Detail of forwardTaskList

Parameter	Type	Description
taskId	string	VoD Streaming task ID



pullId	string	Pull Stream ID of Cloud Live Channel. Source of the content to be streamed.
status	int	VoD Streaming task status. This is used to filter tasks, and the value includes: 0: Pending; 1: Processing; 2: Success; 3: Fail.
forwardUrl	string	Push-stream URL. Destination of the content to be streamed.
startTime	int	Start time, second-level timestamp.
endTime	int	End time, second-level timestamp.
notifyUrl	string	Customized notification URL, start with http:// or https://.
createUser	string	Creator
createTime	int	Create Time
codingParams	array	Settings of the VoD Streaming task, including the bitrate, resolution, frame rate, encoding method, and watermarking. For more detail, please refer to codingParams.

Description of codingParams:

bitrate	int	NO	Bitrate, unit kbps, e.g. 1200
---------	-----	----	-------------------------------



resolution	string	NO	Resolution, e.g. 420x720 ("x" is lower case)
frameRate	int	NO	framerate, e.g. 25
vcodec	String	NO	libx264, support: libx264, libx265 and libvpx. When watermark is needed, then it must be libx264.
acodec	string	NO	libfaac, support: libmp3lame, libfaac, libvorbis.
wmimage	string	NO	The URL of image for watermark : If the url contains &, then escaping is needed.
wmposition	string	NO	Position of watermark. Wmposition is mandatory required when the parameter wmimage has a value. TOP_LEFT TOP_CENTER TOP_RIGHT CENTER_LEFT CENTER CENTER_RIGHT BOTTOM_LEFT



			BOTTOM_CENTER
			BOTTOM_RIGHT

Error response

Parameter	Type	Description
code	int	Error status code
message	string	Error status code description

2.29.6 Response Sample

```
{
  "code": 200,
  "data": {
    "forwardTaskList": [
      {
        "codingParams": {
          "acodec": "",
          "bitrate": null,
          "frameRate": null,

```

```
        "resolution": "",
        "vcodec": "",
        "wmimage": "",
        "wmposition": ""
    },
    "createTime": 1576050276,
    "createUser": "ovptest",
    "endTime": null,
    "id": "f3eab758016e100012febb9700000000",
    "notifyUrl": "http://test.com/callback.do",
    "pullId": "5fc304b8ed704e0fb0a415d613f5811b",
    "startTime": null,
    "status": 3
}
],
"total": 1
},
"message": "Operation succeeded"
}
```

2.29.7 Error Code

Code	Description
900	Internal error
1000	Parameter error
1004	Parameter error. Please make sure all the required items are filled out.
1008	No authority to call the live API

3 Statistical Analyses

3.1 Real-time query of channel online user

3.1.1 Description

Query the online user number of one or more channels specified in the real time through this interface.

Note: this interface is applicable to rtmp stream pulling, not the hls, httpflv, hds, ts stream pulling.

3.1.2 Request Specification

Request Method	Post/get
Interface Address	http://api.cloudv.haplat.net/live/onlinenumber/getRealTimeChannelOnlineNumber

If token is needed? Token authentication is needed

3.1.3 Request Parameter

parameter name	type	if required	Description
pullIds	string	Required	Pull-stream id, use “,” to separate when there are multiple values. Default is all channels when it is left empty.

3.1.4 Request Example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/onlinenumber/getRealTimeChannelOnlineNumber \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
  -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
  -H "X-WS-Timestamp: 1559557864" \
  -H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
  -d 'pullIds=029bbd4d1a804790812a5294cc999f28'
```

3.1.5. Response Format

successful response



parameter name	type	if required	Description
Code	int	Required	200, request succeeded
Message	string	Not required	request succeeded
onlineNumberList	Array	Required	online user number list
below is the parameter of online user under one channel			
pullId	string	Required	pull-stream id
onlineNumber	int	Required	online user number

error response

parameter name	type	Description
Code	int	Error response code
Message	string	Error response message

3.1.6. Response Example

```
{
  "code": 200,
  "data": {
```

```

    "onlineNumberList": [
      {
        "onlineNumber": 2,
        "pullId": "029bbd4d1a804790812a5294cc999f28"
      }
    ]
  },
  "message": "request succeeded"
}

```

3.2 Real-time Query of online user number of domains

3.2.1 Description

This interface is applicable to query the online audience of one or more domains specified at the specific time

Note: this interface is only applicable to pull rtmp stream, not hls, httpflv, hds, ts stream.

3.2.2 Request Specification

Request Method	Post/get
Interface Address	http://api.cloudv.haplat.net/live/onlinenumber/getRealTimeHostOnlineNumber

If token is needed? Token authentication is needed

3.2.3 Request Parameter

parameter name	type	if required	Description
pushDomains	string	Required	Push-stream domain, use "," to separate when there is more than one domain, such as ovplivepush.haplat.net

3.2.4 Request Example

```
curl -X POST \
  https://api.cloudv.haplat.net/live/onlinenumber/getRealTimeHostOnlineNumber \
  -H 'content-type: application/x-www-form-urlencoded; charset=utf-8' \
  -H "Host: api.cloudv.haplat.net" \
  -H "Authorization: WS3-HMAC-SHA256 Credential=bf6b3ba4bd6811e99eb390e2ba00c682, SignedHeaders=content-type;host, Signature=e9ef1db4e7051c461a67461ccf49fdece9d542b96b1d6441ccca5ed204af9717" \
  -H "X-WS-Timestamp: 1559557864" \
  -H "X-WS-AccessKey: bf6b3ba4bd6811e99eb390e2ba00c682" \
  -d 'pushDomains=livepush.ovptest.haplat.net'
```




3.2.5. Response Format

successful response

parameter name	type	Description
Code	int	Status code of creation result. 200 means success.
Message	string	request succeeded
onlineNumberinfo	Array	Query online user name of a certain domain at specific time
below is the response data of online user under a domain		
pushDomain	string	Push-stream domain
searchTime	string	Query time stamp, with precision to minute, 2016-05-06 20:00:00
onlineNumber	string	Online user number

error response

parameter name	type	Description
Code	int	Error response code
Message	string	Error response message



3.2.6 Response Example

```
{  
  
  "code": 200,  
  
  "data": {  
  
    "onlineNumberinfo": [  
  
      {  
  
        "onlineNumber": 2,  
  
        "pushDomain": "livepush.ovptest.haplat.net",  
  
        "searchTime": "2017-09-29 15:34"  
  
      }  
  
    ]  
  
  },  
  
  "message": "request succeeded"  
  
}
```