LVB Recording

Console Guide

Product Documentation

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Console Guide
Creating Recording Template
Recording to VOD

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CSS supports recording live streams and storing recording files in VOD for download and preview. This document describes how to create, bind, unbind, modify, and delete recording templates.

You can create a recording template in two ways:

In the CSS console: For detailed directions, see Creating a Recording Template.

Using an API: For the API parameters and examples, see CreateLiveRecordTemplate.

Notes

Recording files are saved in VOD by default. Please activate VOD first. To avoid service suspension due to overdue payments, you can also buy VOD storage packages in advance. For more information, see Getting Started with VOD. After enabling the recording feature, please make sure that your VOD service is in normal status. If it is not activated or is suspended due to overdue payments, live recording will fail. No recording files will be generated. Nor will fees be incurred.

A recording file is available in about five minutes after recording ends. For example, if you start recording a live stream at 12:00 and stop at 12:30, you can get the recording at around 12:35.

Limited by the support of audio and video file formats (FLV/MP4/HLS) for codec types, you can only use the H.264 and H.265 video codec and the AAC audio codec.

After creating a recording template, you can bind it with push domain names. For detailed directions, see Recording Configuration. The binding takes effect in about 5-10 minutes.

For the naming rules of generated recording files, see VodFileName.

Binding, unbinding, or modifying a template affects only new live streams and not ongoing ones. To make the change apply to ongoing live streams, you need to stop them and push them again.

Mixed-stream recording does not support mixing streams inside the Chinese mainland with those outside. It will cause an error and playback will fail.
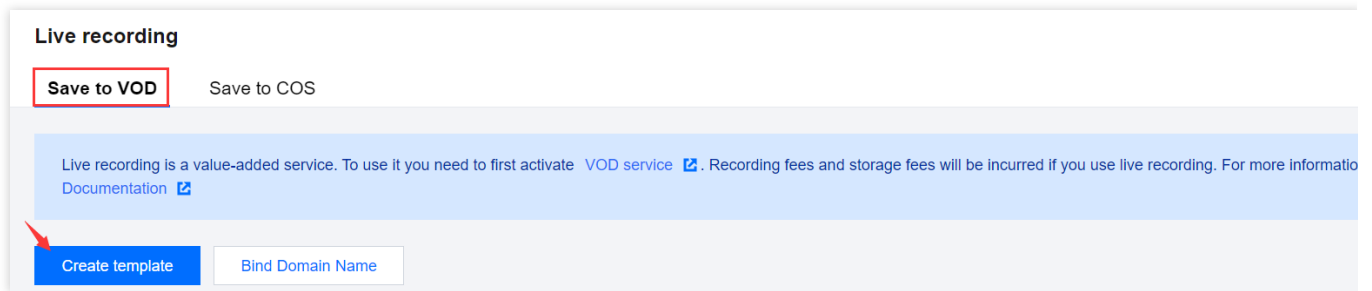
Prerequisites

You have activated CSS and added a push domain.

You have activated the VOD service.

Creating a Recording Template

1. Log in to the CSS console and select **Feature Configuration** > Live Recording on the left sidebar.

2. In the live recording settings, choose **Save to VOD** .

3. Click **Create template** to set the template information and proceed with the following configurations:

Basic recording configuration: This includes the template name, recording content, recording format, and other configuration items. For details, see Basic Recording Configuration Instructions.

Basic recording format configuration: This includes HLS file segmentation, max recording time per file, resumption timeout, and other configuration items. For details, see Basic Recording Format Configuration Instructions.

(Optional) Advanced recording format configuration: By clicking **Advanced Configuration** , you can access and select additional configurations. For details, see Advanced Recording Format Configuration Instructions.

Upon completion, click **Save** .

Basic Recording Configuration Instructions

Note:

When recording the original stream via WebRTC streaming, both HLS and MP4 formats can record and play audio normally, but the FLV format will lose audio. It is recommended to select HLS or MP4 format.

When an audio-only transcoding template is selected during specified transcoded stream recording, the HLS/FLV/MP4 recording file will miss the initial 2 seconds of content due to format conversion. Please plan your push and recording schedule accordingly.

Initiating a transcoding task is required for recording transcoded streams, which will incur additional transcoding costs. However, if the same transcoding template is used for playback, charges will not be duplicated.

Recording Configuration

Template Name *	test001 ✓
	Only supports letters, digits, underscores, and dashes
Template Description	Please describe template
	Supports Chinese characters, letters, digits, spaces, and _-

Recording Content * ☑ Original stream ⓘ   ☑ Watermarked stream ⓘ   ☑ Transcoded and watermarked stream ⓘ   Change Template

Template Name/ID	Template Type	Video Encoding	Video Bitrate	Dimensions
test001( )	Standard Transco…	Original codec	2000 kbps	Short side 1000 px

For the recording content, if multiple options are selected, multiple recordings will be initiated, and various recording files will be generat

Time zone ⦿ UTC+8 ◯ UTC
The time in the filename will be in UTC+8

Recording Format * Video Format
☐ HLS ☐ FLV ☐ MP4
Audio Format
☐ AAC ⓘ

Save Cancel

Basic Configuration Item		Description
Template Name		The template name, which can contain Chinese characters, letters, digits, underscores (_), and hyphens (-).
Template Description		The template description, which can contain Chinese characters, letters, digits, underscores (_), and hyphens (-).
Recording Content	Original stream	Record videos before transcoding, watermarking, and stream mixing.
	Watermarked stream	Record videos after they are watermarked according to the specified watermark template.
	Transcoded and watermarked stream	Click **Transcoded and watermarked stream** . You can select an existing transcoding template or click the name of a template to modify its configuration.

Choosing this configuration will automatically initiate transcoding based on the transcoding template ID after push, and recording will proceed. If the transcoding template has been mistakenly deleted, the effect will be the same as recording content as watermarked streams. Time zone	You can select **UTC+8** or **UTC** . When UTC+8 is selected as the timezone, the naming of the recording files will use the UTC+8 time. When UTC is selected as the timezone, the naming of the recording files will use the UTC time.
Recording Format	Videos can be output in formats of HLS, MP4, FLV, and AAC (for audio-only recording).

Basic Recording Format Configuration Instructions

Note:

Since the recording file is uploaded as it is recorded, it is impossible to ascertain the end time before uploading, preventing the inclusion of the end time in the file name.

Enabling simultaneous recording and uploading ensures files are uploaded immediately after recording ends. A single recording file supports a duration of up to 12 hours and enhances FLV recording's disaster recovery capability.

Playback files may experience lag when being dragged for online playback, but this does not affect local playback.

1. Select the recording content and formats and complete the following settings:

Basic Recording Format Configuration Item	Description
HLS File Segmentation	The HLS file segmentation feature is disabled by default. If post-processing services are needed, it is recommended to enable HLS file segmentation and set the duration of individual HLS recording files. If HLS file segmentation is enabled, the duration of individual HLS recording files can be configured, allowing for the definition of the duration of files produced by post-recording processing. If HLS file segmentation is disabled, recording will continue uninterrupted until the live stream ends. If post-recording processing has been configured, it will be initiated after the recording is complete.
Max Recording Time Per File	Audio/Video - HLS format

(min)	There is no upper limit on the recording duration of a file in HLS format. If the waiting time for continuation of recording is exceeded, a new recording file will be generated to continue recording. When an HLS recording file is saved to VOD, the duration of a single TS file is set to 60 seconds by default. When HLS file segmentation is enabled, the duration of a single HLS recording file can range from 1 to 720 minutes. Audio/Video - FLV format The duration of a single file recorded in FLV format is limited to 1 to 720 minutes. Audio/Video - MP4 format The duration of a single file recorded in MP4 format is limited to 1 to 120 minutes. Audio-only - AAC Format The duration of a single file recorded in AAC format is limited to 1 to 120 minutes.
Resumption Timeout (sec)	The resumption timeout period directly affects the time it takes to generate a recording file. When the interval of stream interruption does not exceed the set resumption timeout period, a single live stream will generate only one file. However, the recording file will be received after the resumption timeout period has elapsed, and recording costs will be incurred during the resumption timeout period. Please set a reasonable resumption timeout period. **Only HLS format** supports resuming recording after stream interruptions, with the resumption timeout period being configurable from 1 to 1,800 seconds.
Storage Period (days)	You can select Permanent to save a recording file permanently or Custom to specify a storage period (up to 1,500 days). If you set the period to 0, recording files will be saved permanently. If a specified time is chosen, in accordance with national regulations, operators must record live video content and ensure storage backup. It is recommended to store recording files for 60 days to 3 years.
VOD Subapplication/Category	Recording to a specified VOD category in VOD application is supported. By default, the recording is stored in the main application of the account, and only applications with an open write status are supported.

2. Click **Save**.

Advanced Recording Format Configuration Instructions

1. You can switch between different tabs to view the configuration requirements for Audio/Video - HLS format, Audio/Video - FLV format, Audio/Video - MP4 format, and Audio-only - AAC format.

Audio/Video - HLS Format

Audio/Video - FLV Format

Audio/Video - MP4 Format

Audio-only - AAC Format

Recording Format *

Video Format

☐ HLS   ☑ FLV   ☐ MP4

Audio Format

☐ AAC ⓘ

▼ Audio/Video - FLV

Recording File Configuration

Max Recording Time Per File
| 1-720 minutes | min |

Storage Period   ○ Permanent   ● Custom | 0-1500 | days |

VOD Subapplication/Category
| PrimaryApplication ▼ | | SystemDefault/ ▼ |

Upload while recording ⓘ   ●○

Post-Recording Process Configuration

Post-Recording Processing ⓘ   ●○

Post-Recording Process Content   ☐ Original stream   ☑ Watermarked stream   ☑ Transcoded and watermarked stream

	Template N...	Template T...	Video Enco...	Video Bitrate	Dimensions
☑	test( )	Standard Tr...	H.264	2000 kbps	Short side 1...

VOD Task Flow   Change Cancel

Advanced Configuration ▲

 After you select this format, AAC files will be generated when audio-only or quasi-audio/video live streams are pushed.

Recording Format •   Video Format

HLS   FLV   MP4

Audio Format

☑ AAC ⓘ

▼ Audio-only - AAC

Recording File Configuration

Max Recording Time Per File	1-120	min
Storage Period	○ Permanent ● Custom	0-1500	days
VOD Subapplication/Category	PrimaryApplication ▼	SystemDefault/ ▼

Post-Recording Process Configuration

Post-Recording Processing ⓘ   ⬤

Post-Recording Process Content   ☑ Original stream   ☐ Watermarked stream   ☐ Transcoded and watermarked stream

Template N...	Template T...	Video Enco...	Video Bitrate	Dimensions
☐ test( )	Standard Tr...	H.264	2000 kbps	Short side 1...

VOD Task Flow   Change Cancel
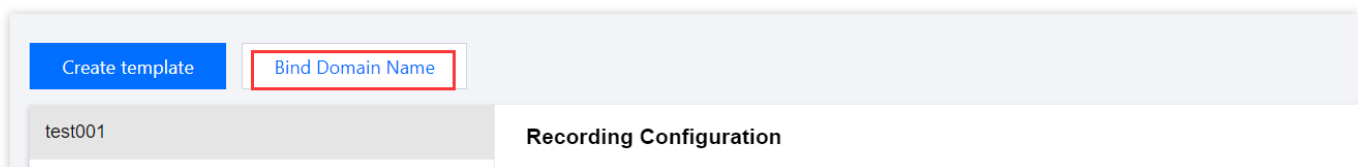
Advanced Configuration ▲

Advanced Configuration Item	Description
Post-Recording Process Configuration	The post-recording processing feature is disabled by default. You can manually enable this feature based on your business needs. After enabling post-recording processing, no post-recording process content is selected by default. You need to manually select the corresponding process content. When HLS, FLV, MP4, and AAC audio and video formats are enabled with post-recording processing, the on-demand task flow cannot be empty. You can cancel or change the **VOD task flow** . You can click to select the bound task flow and choose a task flow already created under the VOD application, or click the task flow name on the current VOD task flow selection page to go to the VOD console to add/modify the task flow configuration. After the task flow is successfully bound, the VOD task flow template will be executed after the recording file is generated, incurring corresponding video on demand fees.
Upload while recording	The upload while recording feature is disabled by default. You can manually enable this feature based on your business needs. Currently, only the FLV format supports the upload while recording feature. Once enabled, it allows immediate upload of files after recording ends, supports a

	recording file duration of up to 12 hours, and enhances FLV recording's disaster recovery capability. Playback files may experience lag when being dragged for online playback, but this does not affect local playback.

Binding a Domain Name

1. Log in to the CSS console and select **Feature Configuration** > Live Recording on the left sidebar.

Bind a domain to an existing template: Click **Bind Domain Name** in the top left.

Bind a domain after creating a template: After creating a template, click **Bind Domain Name** in the dialog box that pops up.

2. In the pop-up window, select a **recording template** and a **push domain** and then click **Confirm**.

Note:

You can click **Add** to bind multiple push domains to a template.

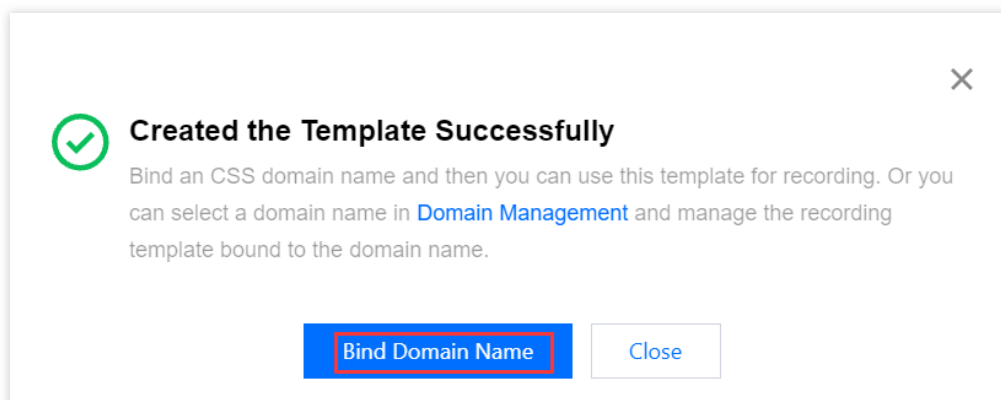# Unbinding a Domain Name

1. Log in to the CSS console and select **Feature Configuration** > Live Recording on the left sidebar.

2. Select a recording template bound with domain names, find the target domain name, and click **Unbind**.

3. In the pop-up window, click **Confirm**.

Note:

Unbinding a recording template will not affect ongoing live streams.

To cancel recording for ongoing streams, stop the streams and push them again.

Modifying a Template

1. Go to **Feature Configuration** > Live Recording.

2. Select the target recording template, click **Edit** on the right, modify the settings, and click **Save**.

Deleting a Template

Note:

If domain names are bound to a template, you need to unbind them before you can delete the template.

Once a template is deleted, it cannot be restored. Please proceed with caution.

1. Log in to the CSS console and select **Feature Configuration** > Live Recording on the left sidebar.

2. Select the target recording template, and click **Delete** in the upper right.

Recording Configuration   Delete

Template Name	test001
Template ID	
Template Description	
Recording Content	Original stream、Watermarked stream、Transcoded and watermarked stream（Transcoding template ID: ）
Recording Format	HLS FLV MP4
Time zone	UTC+8
Recording Configuration	

Audio/Video - HLS

Recording File Configuration		Post-Recording Process Configuration	
HLS File Segmentation	Enable	Post-Recording Processing	Enable
Max Recording Time Per File	120 min	Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
Resumption Timeout	300 sec		
Storage Period	30 days	VOD Task Flow	
VOD Storage Path			
Storage Policy	STANDARD ⓘ		

Audio/Video - FLV

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	60 min	Post-Recording Processing	Enable
Storage Period	60 days	Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
VOD Storage Path			
Storage Policy	STANDARD ⓘ	VOD Task Flow	
Upload while recording	Enable		

Audio/Video - MP4

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	30 min	Post-Recording Processing	Enable
Storage Period	Permanent	Post-Recording Process Content	Original stream、Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
VOD Storage Path			
Storage Policy	STANDARD ⓘ	VOD Task Flow	

Bound Domain Names	None

3. In the pop-up window, click **Confirm**.

Delete recording configuration   ✕

Confirm to delete configurationtest001 ?

Confirm   Cancel

More

For more information about **binding** and **unbinding** a domain name, see Recording Configuration.

FAQs

How are recording files named?

If a recording template is created in the console, the names of recording files (the names returned by the recording callback) are in the following format:

```
{StreamID}*{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}*{EndYear}-{EndMonth}-{EndDay}-{EndHour}-{EndMinute}-{EndSecond}
```

Fields:

Placeholder	Description
{StreamID}	The stream ID.
{StartYear}	The start time - year.
{StartMonth}	The start time - month.
{StartDay}	The start time - day.
{StartHour}	The start time - hours.
{StartMinute}	The start time - minutes.
{StartSecond}	The start time - seconds.
{EndYear}	The end time - year.
{EndMonth}	The end time - month.
{EndDay}	The end time - day.
{EndHour}	The end time - hours.
{EndMinute}	The end time - minutes.
{EndSecond}	The end time - seconds.

Recording to COS

Last updated：2024-07-31 16:44:56

With CSS, you can record a live stream and save the recording file to VOD or COS. This document shows you how to record to Cloud Object Storage (COS).

Notes

To record to COS, you need to activate COS first. We recommend you buy a storage package in advance to avoid service suspension caused by overdue payments. For details, see COS > Getting Started.

After enabling the recording feature, please make sure that your COS service is in normal status. If COS is not activated or is suspended due to overdue payments, live recording will fail. No recording files will be generated. Nor will fees be incurred.

A recording file is available about five minutes after recording ends. For example, if you start recording a live stream at 12:00 and stop at 12:30, you can get the recorded video at around 12:35.

After creating a recording template, you need to bind it to a push domain. For detailed directions, see Recording Configuration. The template takes effect 5-10 minutes after binding.

Mixed-stream recording does not support mixing streams inside the Chinese mainland with streams outside. Doing so will cause an error and playback of the recording file will fail.

CSS needs permissions to store recording files in COS. Before you use the record-to-COS feature, make sure you have granted the necessary permission. If recording to COS fails due to insufficient permissions, the video cannot be recovered. For how to grant the permission, see "Authorizing CSS to Store Recording Files in COS".

Due to the default traffic and QPS limits of COS storage buckets, if your estimated concurrent push streams exceed 5000, please Submit a Ticket to adjust the QPS limit to avoid affecting the normal use of your business.

If you do not specify a recording template when initiating a recording task, the recording file will be saved to VOD.

When storing recorded content in COS and the storage folder includes the stream ID, please ensure the legality of the stream ID aligns with the naming conventions of COS folders/files to prevent file saving failures. For details on COS object naming conventions, refer to the Naming Conventions Document.
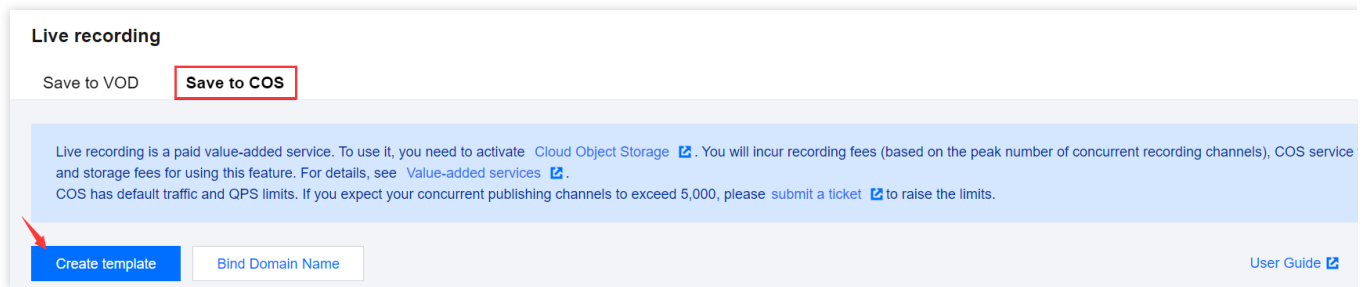
Prerequisites

You have activated CSS and added a push domain.

You have activated COS.

Creating a Recording Template

1. Log in to the CSS console and select **Feature Configuration** > Live Recording on the left sidebar.

2. Select **Save to COS**.

3. Click **Create template** to set the template information and proceed with the following configurations:

Basic recording configuration: This includes the template name, recording content, recording format, and other configuration items. For details, see Basic Recording Configuration Instructions.

Basic recording format configuration: This includes HLS file segmentation, max recording time per file, resumption timeout, and other configuration items. For details, see Basic Recording Format Configuration Instructions.

(Optional) Advanced recording format configuration: By clicking **Advanced Configuration**, you can access and select additional configurations. For details, see Advanced Recording Format Configuration Instructions.

4. Upon completion, click **Save**.

Basic Recording Configuration Instructions

Note:

When recording the original stream via WebRTC streaming, both HLS and MP4 formats can record and play audio normally, but the FLV format will lose audio. It is recommended to select HLS or MP4 format.

When an audio-only transcoding template is selected during specified transcoded stream recording, the HLS/FLV/MP4 recording file will miss the initial 2 seconds of content due to format conversion. Please plan your push and recording schedule accordingly.

Initiating a transcoding task is required for recording transcoded streams, which will incur additional transcoding costs. However, if the same transcoding template is used for playback, charges will not be duplicated.

Recording Configuration

Template Name *	test001 ✓
	Only supports letters, digits, underscores, and dashes
Template Description	Please describe template
	Supports Chinese characters, letters, digits, spaces, and _-
Recording Content *	☑ Original stream ⓘ ☑ Watermarked stream ⓘ ☑ Transcoded and watermarked stream ⓘ Change Template

Template Name/ID	Template Type	Video Encoding	Video Bitrate	Dimensions
test(⬚⬚⬚)	Standard Transc...	H.264	2000 kbps	Short side 1080 px

For the recording content, if multiple options are selected, multiple recordings will be initiated, and various recording files will be generated.

Time zone	⦿ UTC+8 ○ UTC
	The time in the filename will be in UTC+8
Recording Format *	Video Format
	☐ HLS ☐ FLV ☐ MP4
	Audio Format
	☐ AAC ⓘ

Save   Cancel

Basic Configuration Item		Description
Template Name		The template name, which can contain letters, digits, underscores (_), and hyphens (-).
Template Description		The template description, which can be customized and can contain Chinese and English characters, digits, spaces, underscores (_), and hyphens (-).
Recording Content	Original stream	The recording video records the original stream by default and retains its original bitrate. Record videos before transcoding, watermarking, and stream mixing. For WebRTC streams, please select other content types, because the audio playback may be not compatible.
	Watermarked stream	Record videos after they are watermarked according to the specified watermark template. If no watermark template is configured, original streams will be recorded.
	Transcoded and watermarked stream	Click **Transcoded and watermarked stream** . You can select an existing transcoding template or click the name of a template to modify its configuration.

		Choosing this configuration will automatically initiate transcoding based on the transcoding template ID after push, and recording will proceed. If the transcoding template has been mistakenly deleted, the effect will be the same as recording content as watermarked streams.
Time zone		You can select **UTC+8** or **UTC**. When UTC+8 is selected as the timezone, the naming of the recording files will use the UTC+8 time. When UTC is selected as the timezone, the naming of the recording files will use the UTC time.
Recording Format		Videos can be output in formats of HLS, MP4, FLV, and AAC (for audio-only recording).

Basic Recording Format Configuration Instructions

 Note:

Since the recording file is uploaded as it is recorded, it is impossible to ascertain the end time before uploading, preventing the inclusion of the end time in the file name.

Enabling simultaneous recording and uploading ensures files are uploaded immediately after recording ends. A single recording file supports a duration of up to 12 hours and enhances FLV recording's disaster recovery capability.

Playback files may experience lag when being dragged for online playback, but this does not affect local playback.

1. Select the recording content and formats and complete the following settings:

Basic Recording Format Configuration Item	Description
HLS File	The HLS file segmentation feature is disabled by default. If post-processing services are needed,

Segmentation	it is recommended to enable HLS file segmentation and set the duration of individual HLS recording files. If HLS file segmentation is enabled, the duration of individual HLS recording files can be configured, allowing for the definition of the duration of files produced by post-recording processing. If HLS file segmentation is disabled, recording will continue uninterrupted until the live stream ends. If post-recording processing has been configured, it will be initiated after the recording is complete.
Max Recording Time Per File (min)	Audio/Video - HLS format There is no upper limit on the recording duration of a file in HLS format. If the waiting time for continuation of recording is exceeded, a new recording file will be generated to continue recording. When an HLS recording file is saved to COS, the duration of a single TS file is set to 10 seconds by default. When HLS file segmentation is enabled, the duration of a single HLS recording file can range from 1 to 720 minutes. Audio/Video - FLV format The duration of a single file recorded in FLV format is limited to 1 to 720 minutes. Audio/Video - MP4 format The duration of a single file recorded in MP4 format is limited to 1 to 120 minutes. Audio-only - AAC format The duration of a single file recorded in AAC format is limited to 1 to 120 minutes.
Resumption Timeout (sec)	The resumption timeout period directly affects the time it takes to generate a recording file. When the interval of stream interruption does not exceed the set resumption timeout period, a single live stream will generate only one file. However, the recording file will be received after the resumption timeout period has elapsed, and recording costs will be incurred during the resumption timeout period. Please set a reasonable resumption timeout period. **Only HLS format** supports resuming recording after stream interruptions, with the resumption timeout period being configurable from 1 to 1,800 seconds.
Storage path	You can select a COS bucket from buckets that you have created and completed authorization in **Cloud Object Storage** . The region is the region of the mentioned bucket, which cannot be modified.
Backup storage path	The backup storage path feature is disabled by default. You can manually enable this feature according to your business needs. When network jitter prevents the recording file from being stored in the primary storage path, the system will automatically store it in the backup storage path to prevent file loss. Once the primary storage path is restored, the recording file in the backup storage path will be automatically synchronized to the primary storage path. The primary and secondary regions cannot be the same.
Folder	The default storage folder is `{RecordSource}/{Domain}/{AppName}/{StreamID}/{RecordId}/{StartYear}-`

{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}.
{RecordSource} indicates the content type. If the original stream is recorded, this is "origin". If a transcoded stream is recorded, this is the transcoding template ID.
{StartYear} indicates the starting year.
{StartMonth} indicates the starting month.
{StartDay} indicates the starting day.
{StartMinute} indicates the starting minute.
{StartSecond} indicates the starting second.
{Domain} indicates the push domain.
{AppName} indicates the push path.
{StreamID} indicates the stream ID.
{RecordId} indicates the recording task ID, which is returned by the CreateRecordTask API.
(/) indicates folder levels. (-) is an ordinary character.

2. Click **Save**.

Advanced Recording Format Configuration Instructions

1. Log in to the CSS console and select **Feature Configuration** > **Live recording** > Save to COS > Create template > Recording Format > Advanced Configuration.
 Note:

Prerequisite: Since this is the **first time activating the post-recording MPS feature** , the Cloud Streaming Services console needs to call the Media Processing Service (MPS), requiring you to create a service role and authorize the current account role to use the MPS product.
2. Click **authorize** to enter the CAM role management page.
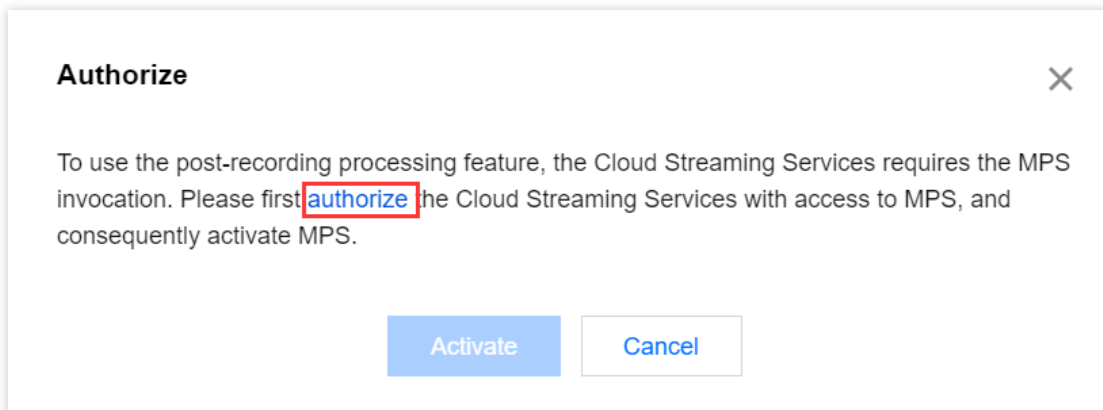
3. On the role management page, click **Grant** to complete the identity verification and finalize the MPS authorization, enabling normal use of the MPS.
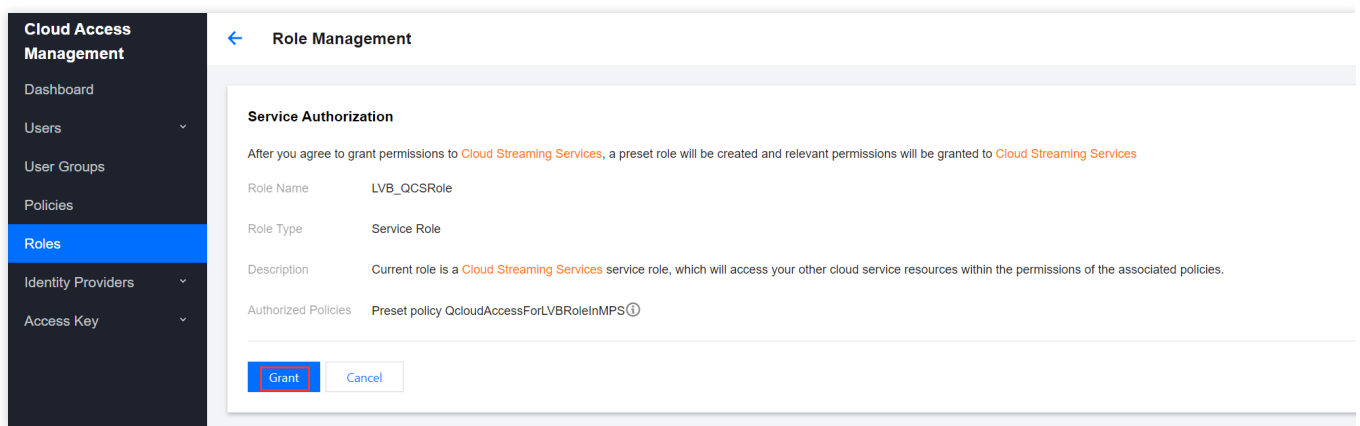
4. After successful authorization, the system will automatically activate the MPS product and display the Save to COS page.

5. Choose **Create template > Recording Format > Advanced Configuration** , and proceed with the following configuration:

5.1 You can switch between different tabs to view the configuration requirements for Audio/Video - HLS format, Audio/Video - FLV format, Audio/Video - MP4 format, and Audio-only - AAC format.

Audio/Video - HLS Format

Audio/Video - FLV Format

Audio/Video - MP4 Format

Audio-only - AAC Format

Tencent Cloud

Recording Format •   Video Format

HLS   FLV   MP4

Audio Format

AAC ⓘ

▼ Audio/Video - HLS

Recording File Configuration

HLS File Segmentation ⓘ

Max Recording Time Per File • | 120 | min |

Resumption Timeout | 0 | sec |

This value will affect when to generate a recording file.

Storage path •

Storage path • | |

Click the above input box to choose a path

Region • | ap-singapore |

Backup storage path

In case of failure to save recording files to the primary storage path due to network jitter, the backup path will be used. After the primary path recovers, the recording fi saved in the backup path will be automatically uploaded to the primary path. The backup and primary paths must be in different regions.

Folder ⓘ | {RecordSource}/{Domain}/{AppName}/{StreamID}/{Recor dId}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}- {StartMinute}-{StartSecond} | **Use default**

Supports letters, numbers, and special characters /{}_-

Post-Recording Process Configuration

Post-recording MPS ⓘ

Post-Recording Process Content   ☑ Original stream ☑ Watermarked stream ☑ Transcoded and watermarked stream

	Template N...	Template T...	Video Enco...	Video Bitrate	Dimensions
☑		Standard Tr...	Original codec	2000 kbps	Short side 1...

Selection of MPS Orchestration   **Change Cancel**

Advanced Configuration ▲

Recording Format *

Video Format

☐ HLS   ☑ FLV   ☐ MP4

Audio Format

☐ AAC ⓘ

▼ Audio/Video - FLV

Recording File Configuration

Max Recording Time Per File

[1-720 minutes] [min]

Storage path *

Storage path * [   ]

Click the above input box to choose a path

Region * [ap-singapore]

Backup storage path

(●)

In case of failure to save recording files to the primary storage path due to network jitter, the backup path will be used. After the primary path recovers, the recording files saved in the backup path will be automatically uploaded to the primary path. The backup and primary paths must be in different regions.

Folder ⓘ

{RecordSource}/{Domain}/{AppName}/{StreamID}/{RecordId}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}

Use default

Supports letters, numbers, and special characters /{}_-

Upload while recording ⓘ

(●)

Post-Recording Process Configuration

Post-recording MPS ⓘ

(●)

Post-Recording Process Content

☑ Original stream   ☑ Watermarked stream   ☑ Transcoded and watermarked stream

Template N…	Template T…	Video Enco…	Video Bitrate	Dimensions
☑	Standard Tr…	Original codec	2000 kbps	Short side 1…

Selection of MPS Orchestration

[   ] Change Cancel

Advanced Configuration ▲

Recording Format *

Video Format

☐ HLS   ☐ FLV   ☑ MP4

Audio Format

☐ AAC ⓘ

▼ Audio/Video - MP4

Recording File Configuration

Max Recording Time Per File

[1-120] min

Storage path *

Storage path * [■]
Click the above input box to choose a path

Region * [ap-singapore]

Backup storage path

🔵

Storage path * [Click to choose a path]
Click the above input box to choose a path

Region * [ ]

In case of failure to save recording files to the primary storage path due to network jitter, the backup path will be used. After the primary path recovers, the recording fi saved in the backup path will be automatically uploaded to the primary path. The backup and primary paths must be in different regions.

Folderⓘ

{RecordSource}/{Domain}/{AppName}/{StreamID}/{Recor dId}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}- {StartMinute}-{StartSecond}   Use default

Supports letters, numbers, and special characters /{}_-

Post-Recording Process Configuration

Post-recording MPS ⓘ

🔵

Post-Recording Process Content

☑ Original stream   ☐ Watermarked stream   ☐ Transcoded and watermarked stream

		Template N...	Template T...	Video Enco...	Video Bitrate	Dimensions
☐			Standard Tr...	Original codec	2000 kbps	Short side 1...

Selection of MPS Orchestration

Change Cancel

Advanced Configuration ▲

 After you select this format, AAC files will be generated when audio-only or quasi-audio/video live streams are pushed.

| Advanced Configuration Item	Description
Post-Recording Process Configuration	The post-recording MPS feature is disabled by default. You can manually enable this feature based on your business needs. After enabling the post-recording MPS, no post-recording process content is selected by default. You need to manually select the corresponding process content. When HLS, FLV, MP4, and AAC audio and video formats are enabled with post-recording processing, MPS orchestration cannot be empty.

	After enabling the post-recording MPS, you can use the MPS orchestration to transcode, repackage, and perform a series of other post-processing services on the original recording files. The storage setting for the processed files is determined by the MPS orchestration task settings, while the original recording files are still retained. You can cancel or change the **MPS orchestration** . You can **click to select the bound MPS orchestration** and choose an orchestration already created under the MPS orchestration application, or click the orchestration name on the current MPS orchestration selection page to go to the MPS console to add/modify the orchestration configuration. After the orchestration is successfully bound, the MPS template will be executed after the recording file is generated, incurring corresponding Media Processing fees.
Upload while recording	The upload while recording feature is disabled by default. You can manually enable this feature based on your business needs. **Currently, only the FLV format supports the upload while recording feature** . Once enabled, it allows immediate upload of files after recording ends, supports a recording file duration of up to 12 hours, and enhances FLV recording's disaster recovery capability. Playback files may experience lag when being dragged for online playback, but this does not affect local playback.

Binding a Domain Name

1. Log in to the CSS console, select **Feature Configuration** > **Live Recording** on the left sidebar, and click **Save to COS.**

Bind a domain to an existing template: Click **Bind Domain Name** in the top left.
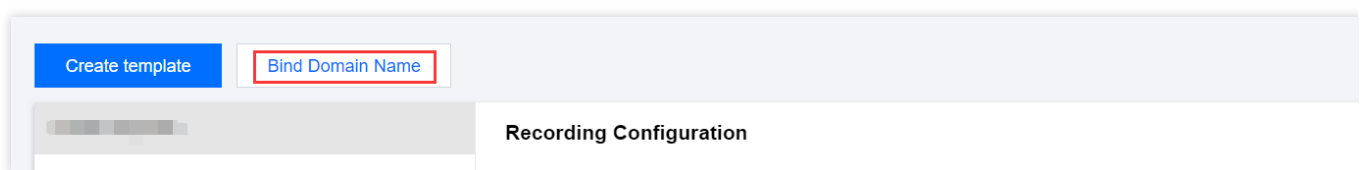
Bind a domain after creating a template: After creating a template, click **Bind Domain Name** in the dialog box that pops up.

Created the Template Successfully

Bind an CSS domain name and then you can use this template for recording. Or you can select a domain name in **Domain Management** and manage the recording template bound to the domain name.

Bind Domain Name   Close

2. In the pop-up window, select a **Recording template** and a **Push domain** and then click **Confirm**.

Bind Domain Name

Domain name binding takes effect in about 10 minutes after the configuration. Using the domain name for push will trigger the template.

Recording Template   test001 (id:))

Push Domain   Please select   Delete

Add

Confirm   Cancel

Note:

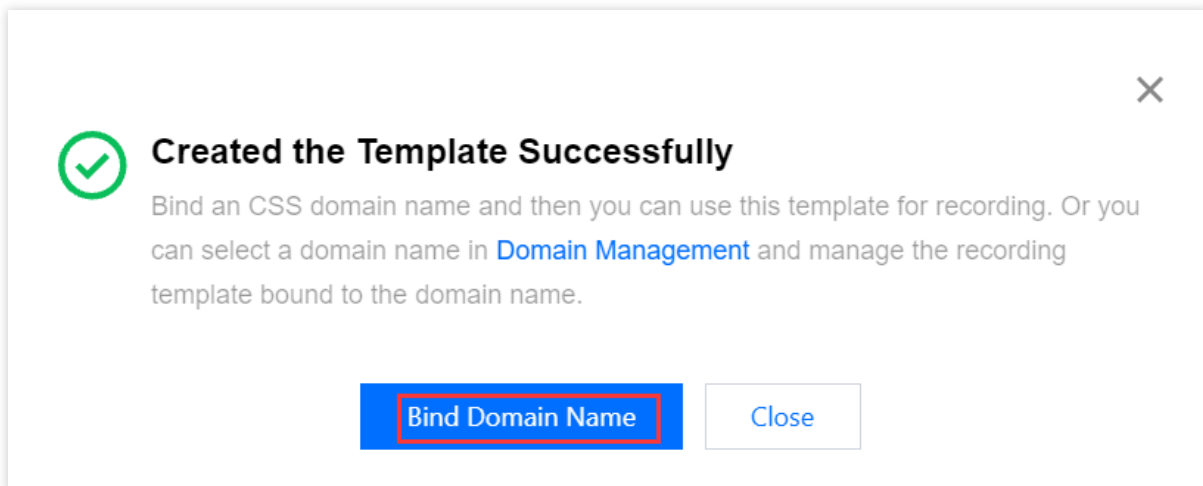You can click **Add** to bind multiple push domains to a template.

Unbinding a Domain Name

1. Log in to the CSS console, select **Feature Configuration** > **Live Recording** on the left sidebar, and click **Save to COS**.
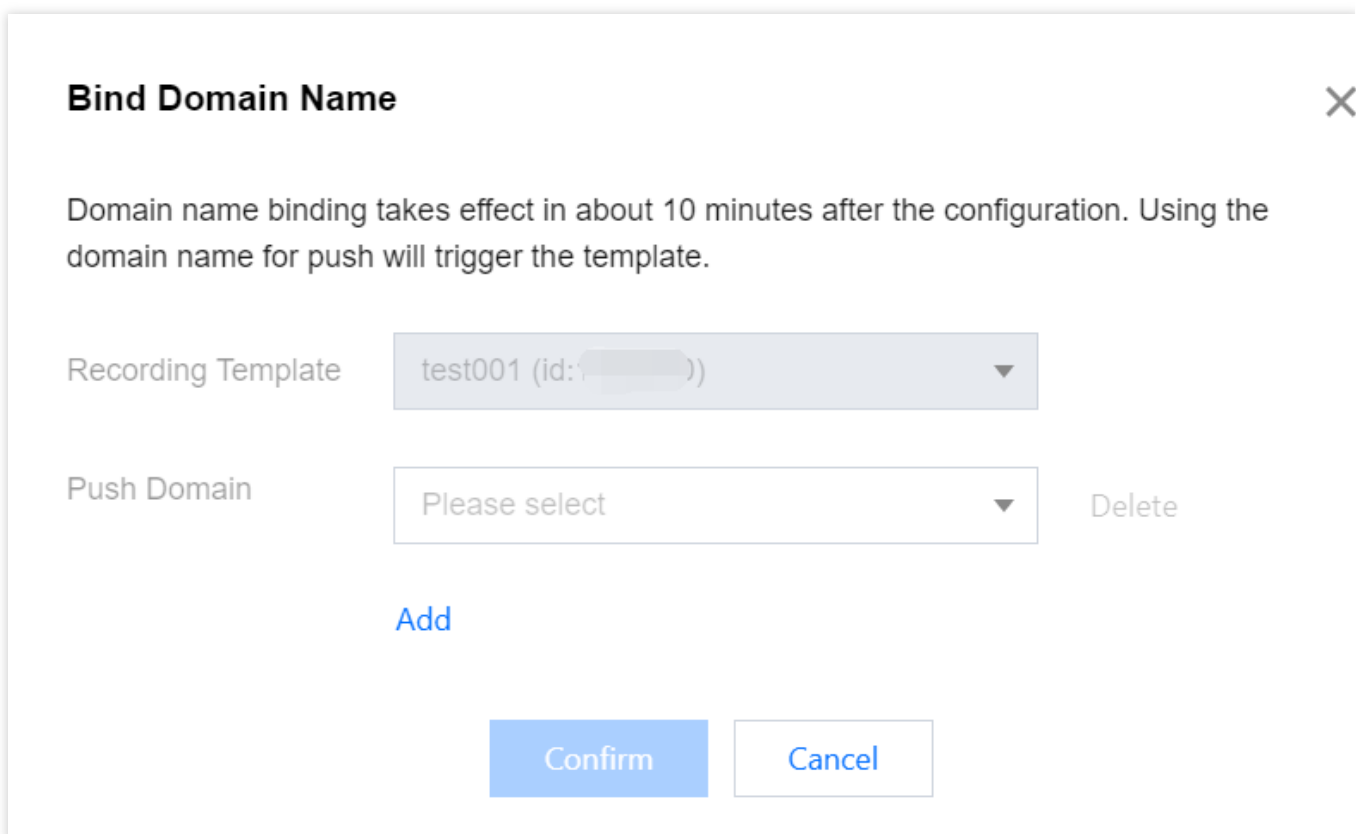
2. Select a recording template bound with domain names, find the target domain name, and click **Unbind**.

Recording Configuration

Delete   Edit

Template Name	test001
Template ID	
Template Description	
Recording Content	Original stream、Watermarked stream、Transcoded and watermarked stream（Transcoding template ID: ）
Recording Format	HLS FLV MP4
Time zone	UTC+8

Recording Configuration

Audio/Video - HLS

Recording File Configuration		Post-Recording Process Configuration	
HLS File Segmentation	Enable	Post-Recording Processing	Enable
Max Recording Time Per File	120 min	Post-Recording Process Content	Original stream、Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
Resumption Timeout	0 sec		
Storage path		MPS Orchestration	
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		

Audio/Video - FLV

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	120 min	Post-Recording Processing	Enable
Storage path		Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		
Upload while recording	Enable	MPS Orchestration	

Audio/Video - MP4

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	60 min	Post-Recording Processing	Enable
Storage path		Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:)、Watermarked stream
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		
		MPS Orchestration	

Bound Domain Names   Unbind

3. In the pop-up window, click **Confirm**.

Are You Sure You Want to Unbind This Template from the Domain Name? ✕

After unbinding, current live streaming will not be affected while this operation will be valid for live streams pushed in the future.

Confirm   Cancel

Note:

Unbinding the recording template will not affect ongoing live streams.

To cancel recording for ongoing streams, stop the streams and push them again.

Modifying a Template

1. Go to **Feature Configuration** > **Live Recording** and select **Save to COS.**

2. Select the target recording template and click **Edit** on the right to modify the template information.

3. Click **Save**.

Recording Configuration		Delete
Template Name	test001	
Template ID		
Template Description		
Recording Content	Original stream、Watermarked stream、Transcoded and watermarked stream (Transcoding template ID:361135)	
Recording Format	HLS FLV MP4	
Time zone	UTC+8	

Recording Configuration

Audio/Video - HLS

Recording File Configuration		Post-Recording Process Configuration	
HLS File Segmentation	Enable	Post-Recording Processing	Enable
Max Recording Time Per File	120 min	Post-Recording Process Content	Original stream、Specific transcoding stream recording with watermark (transcoding template ID:), Watermarked stream
Resumption Timeout	0 sec		
Storage path		MPS Orchestration	
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		

Audio/Video - FLV

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	120 min	Post-Recording Processing	Enable
Storage path		Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:), Watermarked stream
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		
Upload while recording	Enable	MPS Orchestration	

Audio/Video - MP4

Recording File Configuration		Post-Recording Process Configuration	
Max Recording Time Per File	60 min	Post-Recording Processing	Enable
Storage path		Post-Recording Process Content	Specific transcoding stream recording with watermark (transcoding template ID:), Watermarked stream
Folder	{RecordSource}/{Domain}/{AppName}/{StreamID}/{Record Id}/{StartYear}-{StartMonth}-{StartDay}-{StartHour}-{StartMinute}-{StartSecond}		
		MPS Orchestration	

Bound Domain Names		Unbind

Deleting a Template

Note:

If the template has been associated, you need to first unbind it before you can delete it.

Once a template is deleted, it cannot be restored. Please proceed with caution.

1. Log in to the CSS console, select **Feature Configuration** >**Live Recording** on the left sidebar, and click **Save to COS.**

2. Select the target recording template, and click **Delete** in the upper right.

3. In the pop-up window, click **Confirm.**

Delete recording configuration ✕

Confirm to delete configurationtest001 ?

Confirm   Cancel

More

You can also **unbind** and **bind** domains and recording templates on the **Domain Management** page. For details, see Recording Configuration.

Getting Recording File

Last updated：2023-12-23 12:09:05

After a live streaming session is completed, the file generated by LVB recording will be automatically stored in the VOD system. You can query and get the recording file through the VOD console, recording event callback, or VOD API query.

VOD console

Log in to the VOD console and select **Media Assets** > **Video Management** on the **non-admin** page to browse all the generated recording files.
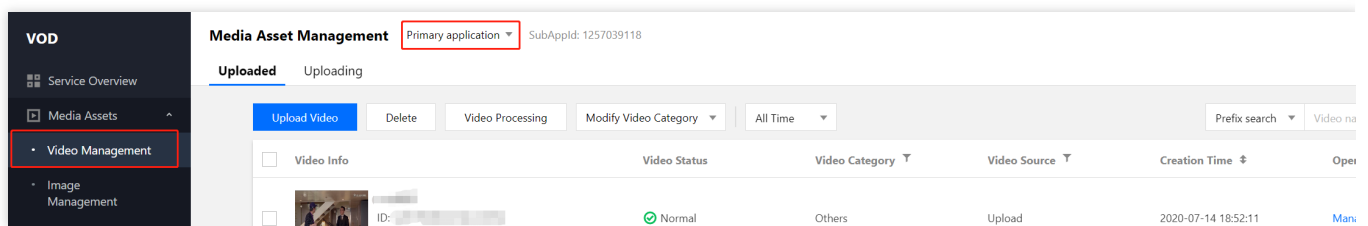
Recording Event Notification

The recording callback URL can be set in the LVB console or through API calls. A notification will be sent to the callback address after the recording files are generated. After that, you can refer to the Callback Event Message Notification for recording to take your next step.
Note:
The event notification mechanism is efficient, reliable, and real-time. Therefore, we recommend you use the callback method to get recording files.

VOD API Query

For more information on how to query and filter recording files, please see SearchMedia.

Processing Recording File
Video Transcoding

Last updated：2024-07-31 17:52:10

After LVB recording is completed, you can process and distribute the recording files through VOD. Main media asset processing operations of VOD include video transcoding, video acceleration, video playback, etc., all of which can be initiated and executed through task flows.

This document describes how to implement the video transcoding configuration and custom transcoding template in the VOD console.

Video Transcoding Configuration

1. Log in to the VOD console and click **Media Assets** > **Video Management** on the left sidebar on the **non-admin** page.

2. Select the video you want to process and click **Video Transcoding** to directly initiate a transcoding task.

Processing Type	Transcoding Template	Watermark Template	Video Cover
Video Transcoding	The following options are available: Click **Transcoding Template**: select one or multiple transcoding templates you created in Template Settings.	The following options are available: Click **No Watermark**.	Click to choose whether to use the first

	Click **Common Template**: the common transcoding template you set will be automatically selected, and you can delete it by clicking **Delete** in the **Operation** column.	Click **Default Watermark**: the default watermark template you set will be automatically selected.	frame as the cover.
Scenario transcoding	Select a pre-configured transcoding template for your scenario.	Click **Select Watermark**: select a watermark template you created in Template Settings.	
Adaptive bitrate streaming	Click the drop-down list and select an adaptive bitrate streaming template you created in Template Settings.		

3. Click **OK** to save the change and directly initiate the transcoding task.

Custom Transcoding Template

The VOD console has built-in templates, including **Video Transcoding Template**, **TESHD Template**, **Audio Transcoding Template**, **Scenario transcoding Template** and **Adaptive Bitrate Streaming Template**. You can also create custom templates and use them to configure video transcoding.

Take the creation of a "video transcoding template" as an example:

1. Log in to the VOD console and select **Media Processing** > **Template Settings** on the left sidebar on the **non-admin** page.

2. Select **Video Transcoding Template** and click **Create Transcoding Template** to enter the template customization page.

3. Enter the configuration information according to the video transcoding template configuration description and click **Create**.
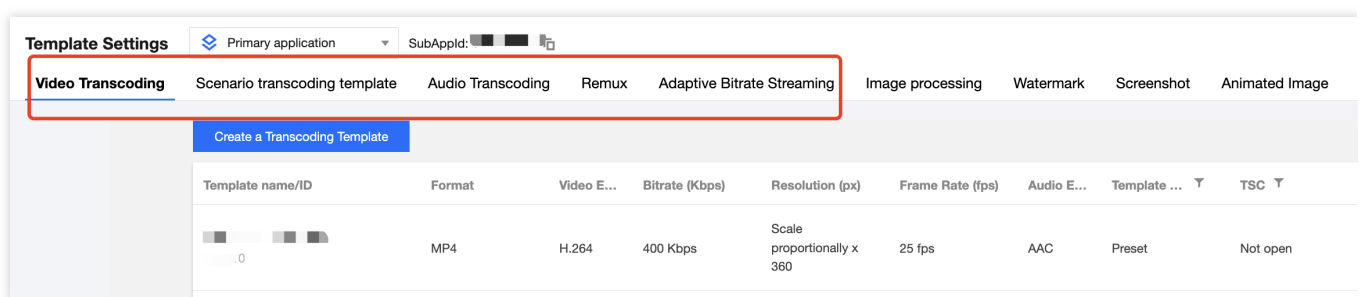
Note:

The created template will be displayed in the template list. You can view, edit, or delete the template, or set it as a common template.

For more information on template configuration, please see VOD - Transcoding Template.

Video Delivery Acceleration

Last updated：2023-12-23 12:10:02

VOD automatically generates acceleration links for recording files stored in it.

Notes

VOD supports forbidding videos. After a video is forbidden, it cannot be watched. The forbidding takes effect in **5 minutes**.

You can determine whether the video is forbidden or normal by the video status.

Directions

1. Log in to the VOD console and click **Media Assets** > **Video Management** on the left sidebar on the **non-admin** page to enter the video list page.

2. Select the video you want to view, click **Quick View** in the **Video Name** column, or click **Manage** on the right to enter the **Basic Info** page and view the corresponding acceleration link.

Video Playback

Last updated：2023-12-23 12:10:25

VOD provides the superplayer feature free of charge. It allows configuring adaptive bitrate streaming, image sprite, and definition name, so you can use it to specify the output for adaptive bitrate streaming, specify image sprites as thumbnails, and specify the definition name. You can also use it to preview videos in the console.

Note:

Superplayer only supports previewing videos processed with adaptive bitrate streaming. If you want to quickly generate videos in compliance with the requirements of the superplayer, please see Using Superplayer for Playback - Integration Guide.

For videos output by adaptive bitrate streaming, VOD supports previewing them with superplayer in the console.

Superplayer Configuration

1. Log in to the VOD console and click **Superplayer Configuration** on the left sidebar on the **non-admin** page.
2. Click **Create** to create a superplayer that meets your needs. You can customize three configuration items: **adaptive bitrate streaming for playback**, **image sprite for thumbnail preview**, and **substream for player display**.

Configuration Item	Description
Adaptive bitrate streaming for playback	This indicates the adaptive bitstream that this superplayer can play back, which is the adaptive bitstream you customize in Template Settings.
Image sprite for thumbnail preview	This indicates the specification of the image sprite that this superplayer can play back, which is the screencapture template you customize in Template Settings.
Substream for player display	This indicates the name display of the superplayer when it uses different substreams. You can use the default substream name or customize one.

3. Click **OK**.

Superplayer Preview

After creating a superplayer configuration, you can get the **configuration name** of the corresponding superplayer. Go to **Media Assets**, select a video, click **Manage** in the **Operation** column on the right, and select the corresponding

configuration name in Parameter Information to configure and preview different superplayers.

Parameter information

"Playback Configuration" contains all the playback configurations created in the superplayer configuration, where `default` and `basicDrmPreset` are the default configurations.

Note:

Except the `default` playback configuration, all playback configurations can be used only after key hotlink protection is enabled for the primary distribution domain name.
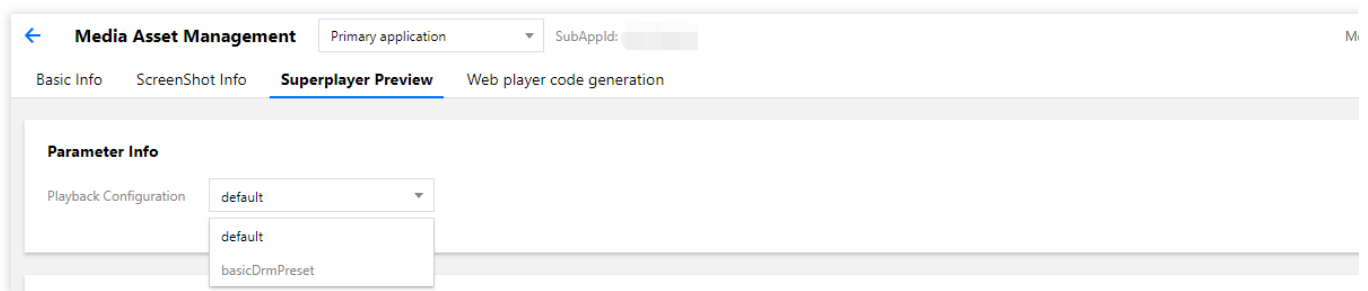
Configuration item

Configuration items display the configuration content in the selected playback configuration.

If a `fileID` has an adaptive bitrate streaming name for playback and image sprite for thumbnail preview, it can be directly previewed in the web player and device player.

If a `fileID` has no adaptive bitrate streaming name for playback or image sprite for thumbnail preview, the following message will be displayed:

This means that the video doesn't meet the video or image sprite specification under this player configuration, and you can use this player configuration only after transcoding the video to the corresponding adaptive bitrate streaming and image sprite specifications.

Playback control

You can enable key hotlink protection for the playback domain name, so that you can use parameter configuration to control the **Playback URL Validity**, **Preview Duration**, and **Max Playback IPs**:

Parameter	Description
Playback URL Validity	Specifies the expiration time of the video URL
Preview Duration	Specifies the preview duration of the video, which must be more than 30 seconds. If this parameter is left empty, there will be no limit on the preview duration
Max Playback IPs	Specifies the maximum number of IPs allowed for playback

Video Preview

If a `fileID` has an adaptive bitrate streaming name for playback and image sprite for thumbnail preview, it can be directly previewed in the web player and device player.

Web player

You can click a video to preview it in the web player. You can also click **Copy Code** to embed it into a custom webpage.

Device player

1. Scan the QR code below to download the Video Cloud Toolkit app.

Note:

We recommend you use QQ or a browser to scan the QR code and download the demo for Android.

2. Use the Video Cloud Toolkit to scan the QR code or enter the `appID` and `fileID` to preview the video on the terminal device.

Task Flow Settings

Last updated：2023-12-23 12:10:57

You can create templates to set task flows for video processing tasks such as transcoding, watermarking, screencapturing, and moderating videos.

Log in to the VOD console and click **Video Processing** > **Task Flow Settings** on the left sidebar on the non-admin page to view the task flow list which displays the following information:

Task Flow Name: user-defined task flow name.

Task Flow Type: **preset** or **custom**.

Creation Time: creation time of task flow.

Last Modified Time: last modified time of task flow.

Operation: tasks added in task flow.

Preset Task Flow

VOD provides two preset task flows which include adaptive bitrate streaming, screencapturing (image sprite generating), and cover image generating tasks. The detailed parameters are as follows:

Task Flow Name	Task Type	Task Template/ID
LongVideoPreset	Adaptive bitrate streaming	Adpative-HLS(10)
	Screencapture	SpriteScreenshot(10)
	Cover image generating	TimepointScreenshot(10)
SimpleAesEncryptPreset	Adaptive bitrate streaming	Adpative-HLS-Encrypt(12)
	Screencapture	SpriteScreenshot(10)
	Cover image generating	TimepointScreenshot(10)

Custom Task Flow

Steps

1. Go to **Task Flow Settings**, click **Create Task Flow** above the list to enter the "Create Task Flow" page, and set the following **task flow template** configuration items:

Task Flow Name: it is customizable and can contain up to 20 letters, digits, hyphens (-), and underscores (_).

Task Type: options include general transcoding, TESHD transcoding, adaptive bitrate streaming, screencapturing, cover image generating, animated image generating, and video moderation. You must select at least one type before you can configure the task flow template. For more information, please see Task configuration.

2. After the configuration items are set, click **Submit** to create the task flow.

Task configuration

Task Type	Support for Preset or Custom Templates	Supported Templates
General transcoding	Transcoding template: Preset templates are supported Custom templates are supported	Transcoding template: select one from the list of created templates. One or more transcoding templates can be added to each task configuration. If the existing templates don't meet your needs, select Template Settings > Transcoding Template to create a custom template. Watermark template: all transcoding templates support watermarking. If the existing templates don't meet your needs, select Template Settings > Watermark Template to create a custom template.
TESHD transcoding	Transcoding template: Preset templates are supported Custom templates are supported	Transcoding template: select one from the list of created templates. One or more transcoding templates can be added to each task configuration. If the existing templates don't meet your needs, select Template Settings > Transcoding Template to create a custom template. Watermark template: all transcoding templates support watermarking. If the existing templates don't meet your needs, select Template Settings > Watermark Template to create a custom template.
Adaptive bitrate streaming	Adaptive bitrate streaming template: Preset templates are supported Custom templates are supported	Adaptive bitrate streaming template: select one from the list of created

		templates. One or more adaptive bitrate streaming templates can be added to each task configuration. Watermark template: all adaptive bitrate streaming templates support watermarking. If the existing templates don't meet your needs, select Template Settings > Watermark Template to create a custom template.
Screencapture	Screencapture template: Preset templates are supported Custom templates are supported	Screencapture template: there are three types of screenshots, namely, time point screenshot, sampled screenshot, and image sprite screenshot. For each screenshot type, you can only select a configured template in the corresponding type. For time point screencapture, you need to configure the time points. If the existing templates don't meet your needs, select Template Settings > Screencapture Template to create a custom template. Watermark template: only the time point screencapture template and the sampled screencapture template support watermarking. If the existing templates don't meet your needs, select Template Settings > Watermark Template to create a custom template.
Cover image generating	Screencapture template: Preset templates are supported Custom templates are supported	Screencapture template: only time point screencapture templates are supported. For sampled screencapture, you can select a time offset or percent. If the existing templates don't meet your needs, select Template Settings > Screencapture Template to create a custom template. Watermark template: all screencapture templates support watermarking. If the existing templates don't meet your needs, select Template Settings > Watermark Template to create a custom template.

Animated image generating	Animated image generating template: Preset templates are supported Custom templates are supported	Animated image generating template: you can add multiple animated image generating templates and configure the time period for animated image generating. If the existing templates don't meet your needs, select Template Settings > Animated Image Generating Template to create a custom template.
Video moderation	Moderation template: Preset templates are supported Custom templates are supported	Moderation template: you can add only one moderation template. If the existing templates don't meet your needs, select Template Settings > Moderation Template to create a custom template.

Note:

A task flow only supports the configured templates.