

# **Media Processing Service**

## **Getting Started**

### **Product Documentation**



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# Getting Started

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This document helps you quickly understand and integrate the Media Processing Service (MPS). The main steps to use the MPS are as follows:

## Prerequisites

### Sign-up and Login

1. [Sign up for a Tencent Cloud account](#).
2. Log in to the Tencent Cloud website, and select **Cloud Products** > **Video Services** > [MPS](#) to enter the MPS console and activate the service for free.

**Activate the Product**

**The Media Processing Service covers a full range of features to meet your diverse processing needs.**

Transcoding HOT

Enhancement

Intelligent Auditing

Intelligent Identific...

Intelligent Analysis

Screenshot

Watermark

Live Recording NEW

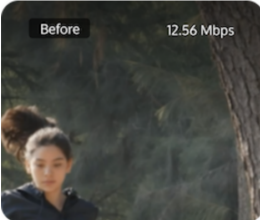
**Reduce Bitrates by 50%+**

Diverse encoding options (AV1, H.266, H.265, H.264), lower bitrates without quality loss, saving playback costs.

[Demo Experience >](#)

Before

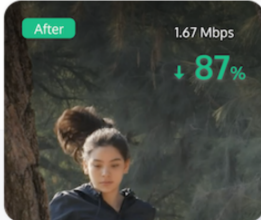
12.56 Mbps




After

1.67 Mbps

↓ 87%





[Activate For Free](#)

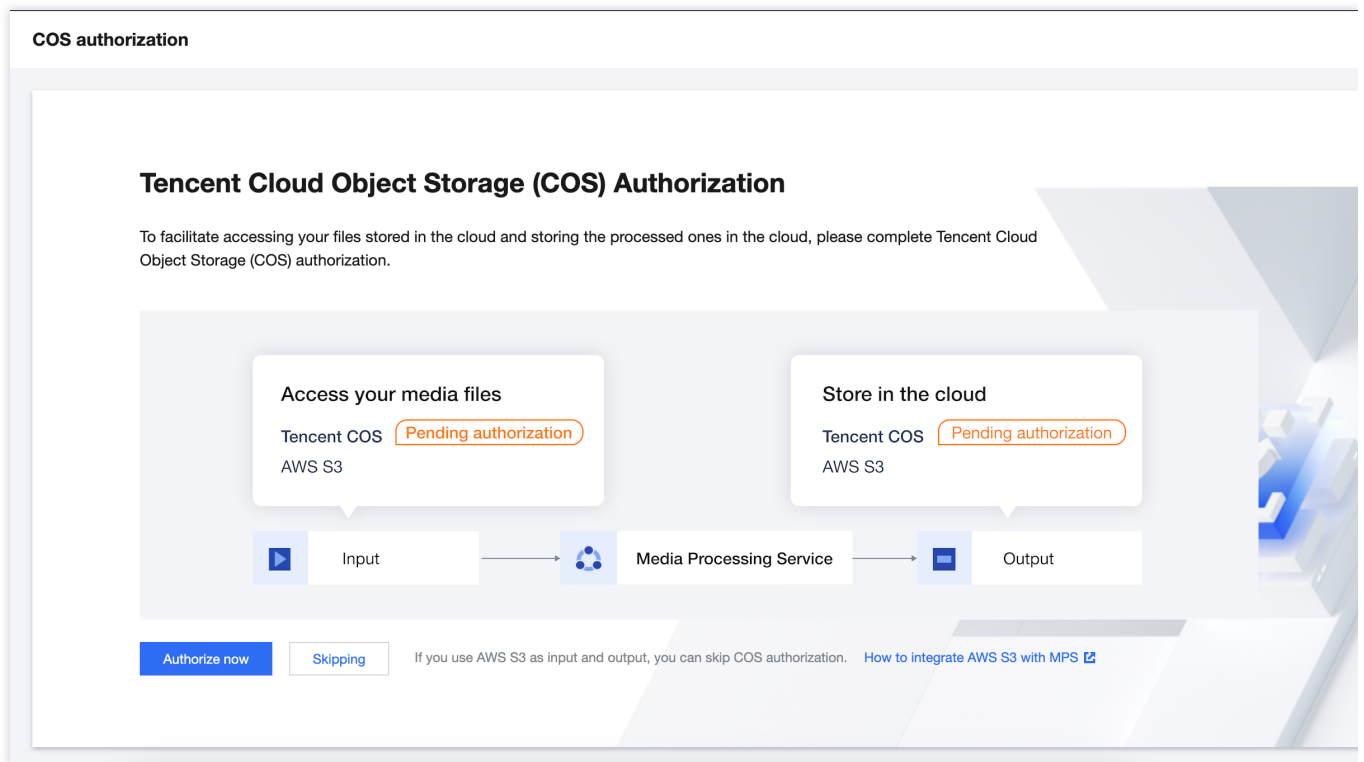
### COS Authorization

Currently, MPS supports three types of input file sources: [Tencent Cloud Object Storage \(COS\)](#), AWS S3, URL.

If you wish to use COS, you must complete COS authorization, create a service role, and allow MPS to perform read and write operations such as downloading, transcoding, and uploading on files in your COS bucket.

If you wish to use AWS S3, you can skip COS authorization, but shall complete [Using Amazon S3 Buckets with MPS](#).

To use a URL as the input source, you need to authorize COS as the output source.



## Note

If you do not complete the authorization, you will not be able to perform COS-related operations in the MPS console, or enable the [Event Notification feature](#).

# Operation Steps

MPS can process your VOD files or live streams.

VOD file processing: Audio and video transcoding, enhancement, intelligent identification & analysis, quality inspection and other processing tasks can be performed on files uploaded to Tencent COS buckets. Currently only transcoding is available for files in AWS S3 buckets.

Live stream processing: Real-time recording, intelligent identification & analysis, quality inspection and other processing tasks can be performed on live streams.

## VOD File Processing

### Step 1: Initiate a Task

Currently, you can initiate a VOD file processing task by three methods:

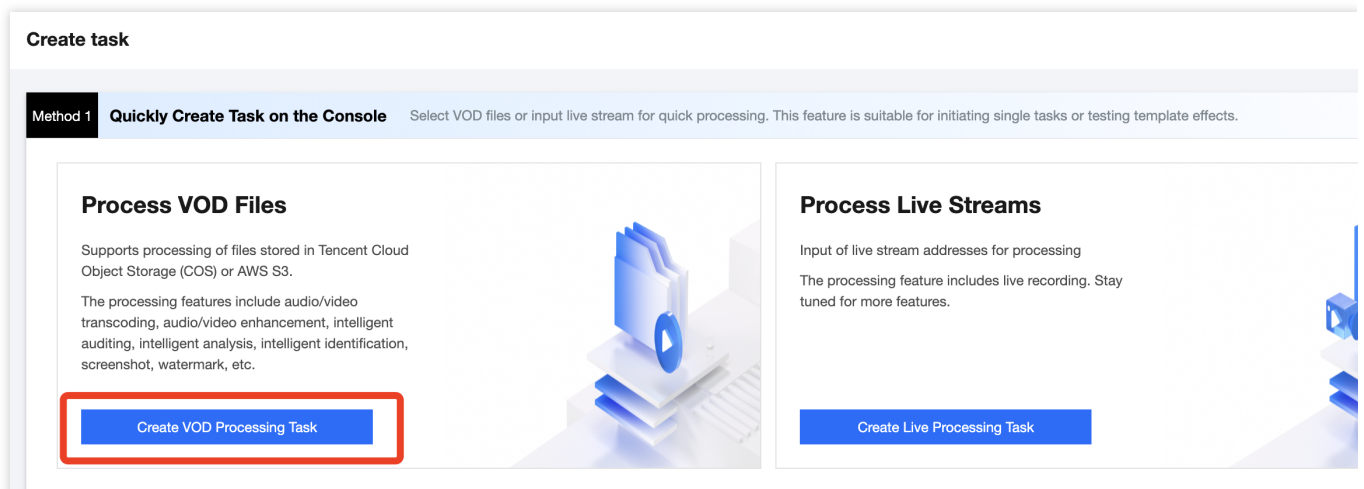
Quickly creating a task in the console: Manually select files in the console and initiate a processing task.

Automatically triggering a task: After files are uploaded to COS/AWS S3 buckets, a processing task will be automatically initiated, with no need to manually create a task in the console.

Initiating a task via an API: A task is initiated by calling the API. It is applicable to batch processing of uploaded files.

#### Method 1: Quickly Creating a Task in the Console

Go to the [Console Task Creation page](#), and click **Create VOD Processing Task**.



Fill in the following information on the Quickly Create VOD File Processing Task page:

**Create VOD Processing Task**

**1 Specify Input File**

Input File Source ☒ Tencent Cloud Object Storage (COS) ☐ URL ☐ AWS S3

Select Input File \*

**2 Process Input Files**

Through the orchestration, MPS feature nodes can be combined, such as enhancing the video before transcoding to form an automatic processing fl

Enable event notifications ☐

**3 Specify Output Path**

Output Save Path \*

To specify the output path of a feature node separately, you can click the feature node in step 2 and configure it in More Settings > Customize Output Path.

**Advanced Settings**

Associate Resource

After the resource is associated, the costs for this task can be allocated based on the tags bound to the resources. To add or modify resources, please go to [Cost Allocation Management](#).

## 1. Specify an input file

You can choose an audio or video file from a COS or AWS S3 bucket, or provide a file download URL.

**Note:**

If you choose COS or URL input, you shall complete the [Prerequisites - COS Authorization](#) step mentioned above. If you choose AWS S3 as the input, you do not need to complete COS authorization, but shall refer to the [Using Amazon S3 Buckets with MPS](#) document, to create an AWS sub-account, S3 input and output buckets, SQS, etc.

**2. Scheme Processing Workflow**

With a scheme, you can combine various features to form an automatic processing workflow. For example, by combining the enhancement and transcoding features, you can first enhance the image quality of the input file and then perform transcoding to reduce the bitrate.

Click **Add Feature Node**, to edit the parameters in the opened drawer floating layer. You can create templates to save parameters for the convenience of reuse.

Select a template: Use template parameters preset in the system or saved previously.

Custom: Custom parameters.

The screenshot displays the 'Create VOD Processing Task' interface. On the left, a dark sidebar shows three steps: 1. Specify Input File, 2. Process Input Files, and 3. Specify Output Path. The main area on the right is titled 'Audio/Video Transcoding Settings' and includes a 'Billing Modes' link. It features a 'Select template' button and a 'Custom' button. The 'Custom' settings are expanded, showing options for File Type (Audio/Video Transcoding), Transcoding Type (General Transcoding), Container format (MP4), and Configuration items (Video Parameters and Audio Parameters). Below these are 'Video Parameters' for Encoding standard (H.264), Average Bitrate (Keep the original), Resolution (Keep the original), and Frame rate (Keep the original). A 'More settings' section includes 'Add Watermark' and 'Customize Transcoding Output Path'. At the bottom, 'Output bucket' and 'Output Path' are set to use defaults. 'Save settings' and 'Cancel' buttons are at the bottom.

**3. Specify the output path**

Specify the default save path for the processed output file.

If you need to set a separate output path for a certain feature node in the scheme, e.g., when you add three features, namely transcoding, enhancement, and screencapturing in the scheme, and you expect the output files of screencapturing to be saved in different paths, you can click on the screencapturing node in [Step 2](#), and configure it in **More Settings > Custom Screencapturing Output Path**. You can also adjust the naming method of the output files for different features. For details, see the description of [Filename Variable](#).

## Method 2: Automatically Triggering a Task

1. Go to the [Scheme Management > VOD Scheme](#) page, and click **Create VOD Scheme**.
2. Configure the trigger bucket and directory, output bucket and directory, specific task flow, etc. For configuration details, refer to [VOD Scheme Configuration Description](#).

←

Create orchestration

Trigger type

AWS

Tencent Cloud COS

Scheme name \*

TEST

Max 128 characters; supports Chinese characters, letters, digits, underscores, and hyphens.

Trigger bucket \*

Tokyo

yunatest-1313953107

Trigger directory

/input/

Starts and ends with "/". If you leave this empty, the orchestration will be applied to all directories of the bucket.

Output bucket \*

yunatest-1313953107

Output directory

/output/

Must start and end with a slash (/). If you do not specify this, the output directory will be the same as the trigger directory.

Enable event notifications

☐

Off-peak transcoding

☐

Currently, off-peak transcoding is only supported for audio/video transcoding actions. More will be supported in the future.

Actions \*

Input

+

Audio/Video

×

+

Audio/Video

×

+

Output

Intelligent An

×

Create

Cancel

3. By default, auto-trigger is not enabled for the scheme. Go back to the **Scheme Management > VOD Scheme** page and click **Enable** to enable the auto-trigger feature.

**VOD Orchestration** Through the orchestration, MPS feature nodes can be combined, such as enhancing the video before transcoding to form an automatic processing flow.

Create a VOD orchestration and enable it. Uploading a new file in the associated bucket will automatically initiate the processing task.

[Create VOD orchestration](#)

Scheme name/ID	Scheme type	Trigger bucket	Trigger directory	Creation time
10101	Preset	-	-	Aug 04, 2023
10100	Preset	-	-	Aug 04, 2023
30826	Custom	ap-tokyo	/input/	Jun 04, 2024
30800	Custom	ap-singapore	/mps/	Jun 03, 2024
30799	Custom	ap-singapore	/mps/	Jun 03, 2024
30798	Custom	ap-singapore	/mps/	Jun 03, 2024
23773	Custom	ap-singapore	/	Aug 29, 2023

Total items: 7

4. Upload a video file that needs processing to the trigger bucket configured in the scheme. The newly uploaded video will then be automatically processed according to the tasks configured in the scheme, with no need to manually create a task in the console.

### Note

After auto-trigger is enabled for the scheme, it will only take effect in video files newly uploaded to the trigger bucket. Files previously stored in the trigger bucket will not be processed automatically.

### Method 3: Initiating a task via an API

Refer to [Proactively Initiate Transcoding](#), and initiate tasks through an API [ProcessMedia](#). The following new features have not been launched on the console yet, but can be experienced through the API:

**Media Quality Inspection:** Supports video file format diagnosis, video image content detection (shaking, blur, low light, overexposure, black edge, white edge, black screen, white screen, image glitch, noise, mosaic, QR code, etc.), and no-reference scoring.

### Step 2: Manage Tasks

1. By entering the [VOD Task Management](#) page, you can see a list of all tasks you have initiated.
2. You can filter tasks to be processed by task status, Task ID, etc. You can also click **View details** to view subtask information, click the Restart button to restart tasks queuing up, play the source video, and perform other operations.



VOD Processing Tasks

This page only shows tasks in the past seven days

Create task

Task ID	Status ▾	Task type ▾	Creation time ↓	End time ↓		
▼ 2600	Completed	Audio/Video Enhancement	Jun 04, 2024 14:39:26 (UTC+08:00)	Jun 04, 2024 14:40:15 (UTC+08:00)		
<div><div></div></div>						
Subtask No.	Subtask status ▾	Subtask type ▾	Template Type ▾	Start time ↕	End time ↕	Output
1	Successful	Audio/Video Enhancem...	-	Jun 04, 2024 14:39:26 (...)	Jun 04, 2024 14:40:15 (...)	c
<div><div></div></div>						
▶ 2601	Completed	Audio/Video Enhancement		Jun 04, 2024 14:36:56 (UTC+08:00)	Jun 04, 2024 14:37:45 (UTC+08:00)	
▶ 2602	Completed	Audio/Video Enhancement		Jun 04, 2024 14:35:27 (UTC+08:00)	Jun 04, 2024 14:36:16 (UTC+08:00)	

3. By expanding the subtask list, you can view subtask information, play/view subtask files, download subtask output files, view subtask details, and perform other operations.

VOD Processing Tasks

This page only shows tasks in the past seven days

Create task

Task ID	Status	Task type	Creation time		
<div><div></div><div></div></div>	Completed	Audio/Video Enhancement	Jun 04, 2024		
Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time
1	Successful	Audio/Video Enhancem...	-	Jun 04, 2024 14:39:26 (...)	Jun 04, 2024 14:40:00
<div><div></div><div></div></div>	Completed	Audio/Video Enhancement	Jun 04, 2024		
<div><div></div><div></div></div>	Completed	Audio/Video Enhancement	Jun 04, 2024		
<div><div></div><div></div></div>	Completed	Audio/Video Enhancement	Jun 04, 2024		
<div><div></div><div></div></div>	Completed	Audio/Video Transcoding, Screenshot, ...	Jun 04, 2024		

Details

Basic information

Subtask No.

1

Subtask status

Success

Start time

Jun 04, 2024 14:39:26 (...)

End time

Jun 04, 2024 14:40:00

Template information

Template Type

-

Template parameters

View

Input information

URL

https://

File size

4.17 M

Bitrate

654.21

Frame rate

24 fps

File duration

00:00

Output information

Bucket

Bucket Location

Singapore

File path

/mp4\_

File size

4.29 M

Bitrate

675.01

Frame rate

24 fps

File duration

00:00

## Live Stream Processing

### Step 1: Initiate a Task

Currently, you can initiate a live stream processing task by two methods:

Quickly creating a task in the console: Manually configure and initiate a processing task in the console.

Initiating a task via an API: A task is initiated by calling an API.

#### Method 1: Quickly Creating a Task in the Console

Go to the [Console Task Creation page](#), and click **Create Live Processing Task**.

## Create task

**Method 1** **Quickly Create Task on the Console** Select VOD files or input live stream for quick processing. This feature is suitable for initiating single tasks or testing template effects.

**Process VOD Files**

Supports processing of files stored in Tencent Cloud Object Storage (COS) or AWS S3.

The processing features include audio/video transcoding, audio/video enhancement, intelligent auditing, intelligent analysis, intelligent identification, screenshot, watermark, etc.

[Create VOD Processing Task](#)**Process Live Streams**

Input of live stream addresses for processing

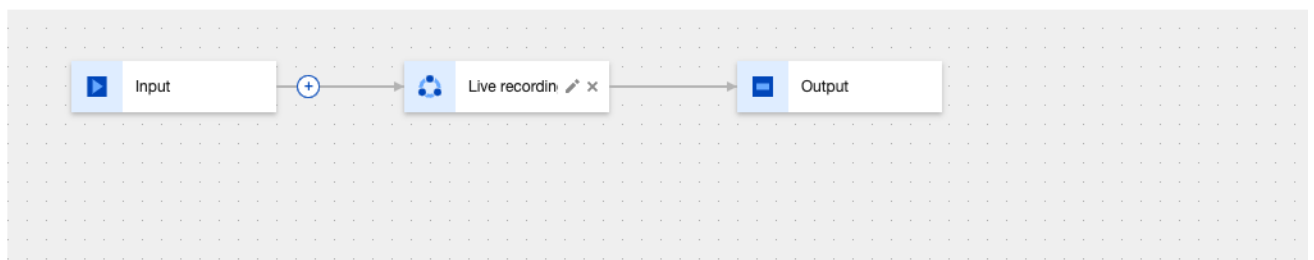
The processing feature includes live recording. See more features.

[Create Live Processing Task](#)

Follow the page instructions to configure the live stream address, scheme, and output save path. Currently, the console supports real-time recording of live streams. For detailed template configurations, refer to [Live Stream Recording Template](#).

[←](#) **Create Live Processing Task****1 Specify Input File**

Live stream address \*

**2 Process Input Files**[Create Orchestration](#)[Select Existing Orchestration](#)

Enable event notifications ⓘ ☐

**3 Specify Output Path**

Output Save Path \*  [Select](#)

To specify the output path of a feature node separately, you can click the feature node in step 2 and configure it in More Settings > Customize Output Path.

[Create](#)**Note:**

When creating a live stream recording task, ensure that the live stream address is correctly entered. If the live stream fails to be pulled the first time, the pulling operation will be retried three times. If the operation still fails, a message of failure will be returned for the recording task.

### Method 2: Initiating a Task via an API

Initiate a single live stream processing task via the API [ProcessLiveStream](#). It supports the following features:

Smart Moderation: Supports recognition of pornographic content in images and sounds, and detection of sensitive information.

Intelligent Identification: Supports recognition of faces, objects, text, and speech. Speech recognition also supports intelligent translation and real-time subtitle conversion. It includes features such as game tagging.

Intelligent Analysis: Supports real-time news segmentation and other features.

Quality Inspection: Supports live stream format diagnosis, video image content detection (shaking, blur, low light, overexposure, black and white edges, black and white screens, image glitch, noise, mosaic, QR code, etc.), no-reference scoring, and other features.

Live Stream Recording.

### Step 2: Manage Tasks

Go to the [Live Stream Task Management](#) page, where you can see a list of all the live stream processing tasks you have initiated. You can view task details, terminate tasks, and perform other operations.

Live Processing Tasks

You can create a live processing task to record live content. [Learn more](#)

This page only shows tasks in the past seven days

Create task

Task ID	Status	Task type	Creation time	En
<div><div></div><div>7329dde22...</div></div>	Completed	Live recording	Jun 04, 2024 10:50:04 (UTC+08:00)	Jur

Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time	Output
1	Successful	Live recording	Live recording	Jun 04, 2024 10:50:08 (...)	Jun 04, 2024 11:18:10 (...)	

<div><div></div><div>je1839a82a69d7a59...</div></div>	Completed	Live recording	Jun 04, 2024 10:47:23 (UTC+08:00)	Jur
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Total items: 2