

Video on Demand

FAQs

Issue 01
Date 2024-12-27



Copyright © Huawei Technologies Co., Ltd. 2024. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

Trademarks and Permissions



HUAWEI and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: <https://www.huawei.com>

Email: support@huawei.com

Contents

1 Product Consulting	1
1.1 What Is the Relationship Between VOD and OBS?	1
1.2 Is VOD Only Available on Huawei Cloud ECSs?	1
1.3 Do I Need to Buy the CDN Service Before Using VOD?	1
1.4 What Is CDN Used for?	2
1.5 Do I Need to Obtain a License Before Running a VOD Business?	2
1.6 What Is the Host IP Address for?	2
1.7 Do I Need to Enable OBS Before Using VOD?	2
1.8 Is There a Bandwidth Limit for Playing Videos Using VOD?	2
1.9 Does VOD Support Real-Time Monitoring?	2
2 Billing	3
2.1 How Long Is the Retention Period for My Resources After My Account Goes Into Arrears?	3
2.2 Do I Need to Unsubscribe from VOD If I Do Not Use It?	3
2.3 How Is VOD Traffic Billed?	4
2.4 How Is a Transcoding Template Group Billed?	4
2.5 How Is URL Pull Billed?	4
2.6 How Do I Calculate the VOD CDN Traffic?	4
2.7 How Is a Workflow Billed?	5
2.8 Will I Be Billed Again If I Use the Same Device ID to Watch a Video Repeatedly?	5
2.9 Is Audio and Video Review Charged?	5
3 Permissions Management	6
3.1 Why Can't an IAM User View Media Files Uploaded by the Account on the Console?	6
3.2 How Do I Implement Access Control on Uploaded Media Files?	6
3.3 What Permissions Do I Need for Uploading Media Files?	6
3.4 Does VOD Support User Group Permissions?	6
3.5 Why Can't an IAM User Log In to the VOD Console After Obtaining the VOD FullAccess Permission?	7
4 Domain Name Management	8
4.1 Do I Need to Prepare a Domain Name Before Using VOD?	8
4.2 Can I Use My Own Domain Name?	8
4.3 Why Can't I Add a Domain Name?	8
4.4 How Do I Check Whether a Domain Name Has Been Enabled?	8

4.5 How Many Domain Names Can I Add to One Account?.....	9
4.6 How Do I Configure HTTPS Secure Acceleration?.....	9
4.7 What Can I Do If the Message "The certificate and domain name do not match." Is Displayed During HTTPS Certificate Configuration?.....	9
4.8 How Do I Use Different Domain Names Simultaneously When Multiple Domain Names Are Configured for VOD?.....	10
4.9 Why Does the Domain Name Status Remain "Configuring"?.....	10
5 Notifications.....	11
5.1 How Do I Configure Event Notifications? Where Can I Set a Message Topic?.....	11
5.2 What Are the Callback Notifications Supported by Media File Processing?.....	11
5.3 Why Can't I Receive Notifications After Configuring Event Notifications?.....	11
6 Upload.....	13
6.1 What Media File Formats Does VOD Support?.....	13
6.2 How Are Media Files Uploaded to VOD?.....	13
6.3 Can I Upload Compressed Video Files?.....	13
6.4 Is There Any Limit on the File Upload Size?.....	13
6.5 Is There Any Limit on the Total Size of Videos?.....	14
6.6 What Is the Maximum Length of a Video File Name?.....	14
6.7 Why Does Video Uploading Take So Long?.....	14
6.8 Why Can't the File Length Be Obtained After a Media File Is Uploaded to VOD?.....	14
6.9 Does VOD Support Resumable Upload?.....	14
6.10 How Do I Avoid Uploading Duplicate Files?.....	15
6.11 Why Can't I Find My Video on the Console After a Video Has Been Uploaded?.....	15
6.12 Why Am I Logged Out Automatically? Will This Cause Upload Failure?.....	15
6.13 When Can I Play an Uploaded Media File?.....	16
6.14 How Long Does It Take to Upload a Video File?.....	16
6.15 Why Can't I Upload Media Files?.....	16
6.16 Why Is the Thumbnail Not Displayed After Being Uploaded on the Console?.....	17
6.17 Can I Upload Videos Using WeChat Mini Programs?.....	17
6.18 Do I Need to Upload a Thumbnail for an Uploaded Video?.....	17
7 Media Processing.....	18
7.1 How Do I View Video Details Locally?.....	18
7.2 How Do I Add Subtitles to a Video?.....	19
7.3 How Do I Export All Media Details from the VOD Console?.....	20
7.4 Why Can't I View All Uploaded Video Files on the Snapshots Page?.....	20
7.5 Does the Duration on Audio and Video Management Page Refer to the Duration of the Input File or the Transcoded Output?.....	20
7.6 Does VOD Have System Presets?.....	21
7.7 Which Input Formats Does VOD Transcoding Support?.....	21
7.8 Which Output Formats Does VOD Support?.....	21
7.9 How Do I Convert a Video to Multiple Outputs in Different Resolutions?.....	22
7.10 Can I Use Multiple Transcoding Templates for a Video While Transcoding?.....	22

7.11 Will I Be Billed for the Index File Generated After Transcoding to the HLS Format?.....	22
7.12 Why Is the Output Resolution Inconsistent with That Configured in the Transcoding Template?.....	22
7.13 Why Is Transcoding Sometimes Fast and Sometimes Slow?.....	23
7.14 Does the Input Resolution for Video Transcoding Support 8K?.....	23
7.15 Does Transcoding Change the Size of Audio and Video Files?.....	23
7.16 Why Do I Fail to Delete a Media File?.....	23
7.17 Why Only Two Outputs Are Created When Three Outputs Are Set in the Transcoding Template?.....	23
7.18 Does VOD Support Transcoding Callbacks?.....	23
7.19 Why Is the Video Duration Different from That Displayed in the Player After Video Transcoding or Segmentation?.....	24
7.20 Why Does CDN Pre-loading Fail?.....	24
7.21 Why Can't I Delete a Watermark Template?.....	25
8 Playback.....	26
8.1 What Are the Differences Between DASH, HLS, and MP4 Files?.....	26
8.2 How Do I Obtain the Streaming URL of a Media File?.....	27
8.3 How Do I Play Media Files on a Mobile Device?.....	27
8.4 Which Types of Files Can Be Previewed on the VOD Console?.....	27
8.5 What If I Failed to Play HLS Videos?.....	28
8.6 How Do I Stop HLS Videos from Freezing?.....	28
8.7 What If the Uploaded Video File Can't Be Played?.....	28
8.8 Can I Create a QR Code for My Video Playback URL?.....	29
8.9 Do I Need to Transcode an Uploaded Video Before Playing It?.....	29
8.10 Why Does a Video Fail to Be Played Using My Own Domain Name?.....	29
8.11 Can I Play a Video If I Don't Buy a Transcoding Package?.....	30
8.12 Why Does the Encrypted HLS Video Playback Failed?.....	30
8.13 Is There Any Limit on the Number of Online Viewers?.....	30
8.14 Why An Error Code 403 Is Returned When I Access the Playback URL?.....	31
8.15 Can I Use My Own Player to Play Media Files Uploaded to VOD?.....	31
8.16 Can I Replace the Domain Name in the Generated Playback URL with My Own Domain Name?.....	31
8.17 How Do I Fix a Blurry Video?.....	31
8.18 Why Can't I Obtain the Streaming URL of a Transcoded Video?.....	32
8.19 Why Does Frame Freezing Occur During the Playback of a Transcoded Video?.....	32
8.20 Why Cannot a Transcoded M3U8 Video Be Played After URL Validation Is Configured?.....	32
8.21 Why Can't an Encrypted HLS Video Be Played After Being Transcoded for the Second Time?.....	32
9 APIs and SDKs.....	33
9.1 How Do I Obtain a Temporary AK/SK Pair and Security Token?.....	33
9.2 Why Is the File Duration Returned 0 When I Call the API for Querying Media Details?.....	33
9.3 How Do I Fix the Error of "Failed to verify the tenant ID" When I Call a VOD API?.....	33
9.4 Why Is "The throttling threshold has been reached" Returned When I Call an API to Delete a Media File?.....	34
9.5 Does task_id Returned Mean that My Pre-loading Task Has Been Completed?.....	34
9.6 What Should I Do If the Frequency of Calling the Key Query API Exceeds 100 Times per Minute?.....	34

9.7 Why Is a Message Displayed Indicating that the Current Media File or Resource Status Does Not Support This Operation During Media File Processing?.....	34
9.8 What Are the Programming Languages Supported by the Server SDK?.....	34
9.9 Why Are the source_path and output_path Parameters Empty in the Return Result When the API for Querying Details About a Specified Media File Is Called?.....	35
9.10 How Do I Delete an Uploaded Multipart Video If the Upload Is Canceled When the API Is Called to Upload a Video?.....	35
9.11 Why Can't I Obtain the Thumbnail After Calling the API for Uploading a Video File?.....	35
9.12 How Do I Set the Validity Period of the AK/SK and Security Token?.....	35
9.13 Why Can't I Preview the Watermark Image on the Console After Calling the API for Image Upload?	35
10 Security.....	37
10.1 How Do I Protect Audio and Video from Piracy?.....	37
10.2 How Do I Prevent Secondary Distribution After Audios and Videos Are Downloaded?.....	37
10.3 Does HLS Encryption Provide One Key for Each Video? Will the Key Expire?.....	37
10.4 How Do I Encrypt Transcoded Videos Using HLS?.....	38
10.5 What Is a Key URL? How Do I Obtain It?.....	38
10.6 What If the URL Validation Expires?.....	38
10.7 Can Audio Files Be Encrypted During HLS Encryption?.....	38
10.8 What Are the Differences Between HLS Encryption and Hotlink Protection?.....	39
10.9 Can Encrypted Videos Be Played After the URL for Obtaining Keys Is Changed?.....	40
10.10 Will a Signed URL Become Invalid During Playback?.....	40
10.11 Why Does the Encrypted HLS URL in the Original Streaming URL Remain Unchanged After the Encrypted HLS URL Is Changed?.....	40
10.12 Does VOD Support the Function of Only Watching Videos on CloudSite But Not Downloading Them?.....	40
10.13 Are Self-Signed HTTPS Certificates Supported?.....	40
11 Statistics Analysis.....	41
11.1 Which Statistics Can Be Viewed on the VOD Console?.....	41
11.2 What Is the Traffic Hit Ratio?.....	41
11.3 What Is the Cache Hit Ratio?.....	41
11.4 What Are Total Requests?.....	41

1 Product Consulting

1.1 What Is the Relationship Between VOD and OBS?

The relationship between VOD and Object Storage Service (OBS) is as follows:

- VOD is an all-in-one media service that integrates upload, storage, transcoding, processing, distribution, and playback. OBS is an object-based storage service that provides massive, secure, highly reliable, and cost-effective data storage. VOD stores input media files and output media files such as subtitles and snapshots. OBS can store multiple types of files, such as audio and video files, images, and texts. Its functions are similar to those of a cloud disk.
- OBS can work with CDN to accelerate delivery of files stored in OBS buckets. To use the VOD service, you need to add licensed domain names to the VOD service for media file distribution acceleration. In addition, VOD provides functions such as transcoding, audio extraction, video editing, and video review. Compared with OBS, VOD can better meet your requirements for online videos.
- Media files in VOD are stored in an OBS bucket. However, the OBS bucket is invisible and those media files do not occupy any OBS space. You do not need to enable OBS.

1.2 Is VOD Only Available on Huawei Cloud ECSs?

You do not need to purchase Huawei Cloud ECSs for using VOD. You only need to prepare a licensed domain name. For details, see [Getting Started](#).

1.3 Do I Need to Buy the CDN Service Before Using VOD?

No. CDN is integrated with VOD. VOD acceleration is enabled by default.

1.4 What Is CDN Used for?

After CDN is enabled, all requests for your domain names are redirected to CDN nodes. CDN accelerates the delivery of historical and newly created media files.

1.5 Do I Need to Obtain a License Before Running a VOD Business?

A VOD business license is optional. If you have the following business requirements, obtain one of these licenses:

- Telecommunications business: *Telecommunications Business License*
- Internet news and information services: *Internet News and Information Service License*
- Online performance: *Internet Culture Operating License*
- Live broadcasting of audiovisual content: *License for Publication of Audio-Visual Programs through Information Network*

1.6 What Is the Host IP Address for?

If you need to use your own domain name when using Live or VOD, have it licensed and add it to the console before using Live or VOD. However, when you apply for the ICP license for your domain name, you need to enter the host IP address.

1.7 Do I Need to Enable OBS Before Using VOD?

It depends. If you want to store media files in VOD, then just upload them to VOD.

1.8 Is There a Bandwidth Limit for Playing Videos Using VOD?

There is no bandwidth limit for VOD. By default, VOD is accelerated on the entire network, and media files are cached to CDN edge nodes. However, the bandwidth at the playback end affects the watching experience of VOD videos.

1.9 Does VOD Support Real-Time Monitoring?

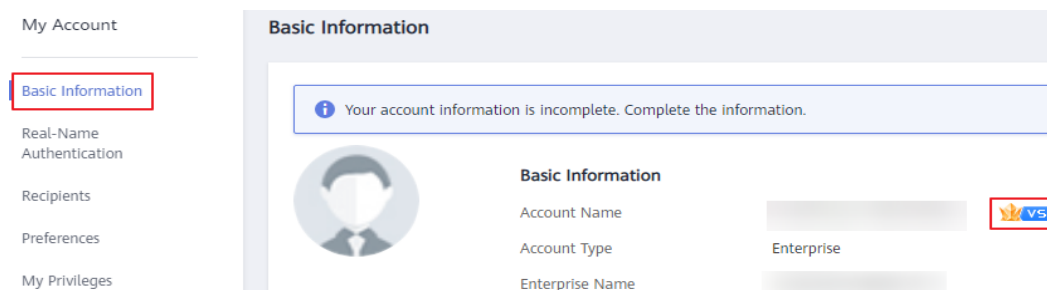
Yes. VOD interconnects with Cloud Eye to display basic data (such as traffic, bandwidth, and status codes) of domain names under your account in real time, so that you can add alarms based on the data. Currently, self-service configuration on the console is not enabled. To use this function, [submit a service ticket](#).

2 Billing

2.1 How Long Is the Retention Period for My Resources After My Account Goes Into Arrears?

HUAWEI CLOUD defines the retention period based on the customer tier.

On the VOD console, move the cursor to the username in the upper right corner and choose **Basic Information** from the drop-down list to view your customer tier. For details about how to handle service suspension due to arrears, see [Retention Period](#).



2.2 Do I Need to Unsubscribe from VOD If I Do Not Use It?

The billing items of VOD include media processing, media storage, and downstream traffic or bandwidth. If you do not need to use VOD any more, you are advised to delete all media files from VOD to ensure that no storage, downstream traffic, or bandwidth costs are generated.

NOTICE

After media files are deleted, the playback URLs referenced by the Internet cannot be used.

2.3 How Is VOD Traffic Billed?

VOD bills you for the downstream traffic. For details, see [VOD Pricing Details](#).

2.4 How Is a Transcoding Template Group Billed?

One-in multiple-out indicates that a transcoding template is configured with multiple output resolutions. For details, see [Transcoding Settings](#).

You need to pay for multiple transcoding outputs.

The unit price for each output depends on the codec used, output resolution, and whether Low Bitrate HD is enabled. For details, see [VOD Pricing Details](#). For example:

Transcoding template: Low Bitrate HD disabled and H.264 codec. Three output resolutions are configured: FHD (resolution: 1920x1080; bitrate: 3000), HD (resolution: 1280x720; bitrate: 1500), and SD (resolution: 640x480; bitrate: 900).

Video duration: 1,000 minutes

The unit price of each transcoding output can be determined based on the configured output specifications.

- A video whose resolution is 1920x1080 and bitrate is 3000 is billed based on the **H.264-FHD (1920x1080) or lower** specifications.
- A video whose resolution is 1280x720 and bitrate is 1500 is billed based on the **H.264-HD (1280x720) or lower** specifications.
- A video whose resolution is 640x480 and bitrate is 900 is billed based on the **H.264-SD (640x480) or lower** specifications.

Transcoding fee = $(0.065 + 0.033 + 0.022) \times 1,000 = \text{¥}120$

If you buy a H.264 package, deduct 5,500 $(1,000 + 1,000 \times 1.5 + 1,000 \times 3)$ minutes from your package.

2.5 How Is URL Pull Billed?

URL pull refers to pulling audio and video files from their URLs and then uploading them to VOD. You can directly process these files on the VOD console. For details, see [URL Pull](#).

Uploading audio and video files through URL pull is free of charge. However, using VOD to process these files will generate storage, media processing, or distribution fees. For details about the billing items, see [VOD Pricing Details](#).

2.6 How Do I Calculate the VOD CDN Traffic?

Traffic consumed = Bitrate x Duration x Number of viewers

If a video file lasts 2 hours, its bitrate is 1,000 kbit/s, and 100 viewers have watched the video for 2 hours, the estimated traffic is calculated as follows:

$1000/8 * 3600 * 2 * 100 = 90000000 \text{ KB} = 87.89 \text{ GB}$

2.7 How Is a Workflow Billed?

A **workflow** is a sequence of tasks that are executed at a time. You will be billed for each task. Transcoding, snapshots (including those under review), and audio extraction are billing items. For details, see [VOD Pricing Details](#).

2.8 Will I Be Billed Again If I Use the Same Device ID to Watch a Video Repeatedly?

Regardless of which device ID you use, each time you access the video URL, you will be billed based on the traffic. For details, see [VOD Pricing Details](#).

2.9 Is Audio and Video Review Charged?

The audio and video review function is free of charge. However, video screenshots are generated during the review. The system marks the screenshots that contain inappropriate content for manual review, and you will be charged for video screenshots.

3 Permissions Management

3.1 Why Can't an IAM User View Media Files Uploaded by the Account on the Console?

It is possible is that you use the system policy to isolate media. The IAM user and the account are not in the same group. You are advised to add the IAM user to the group of the account. For details, see [Creating a User and Granting VOD Permissions](#).

3.2 How Do I Implement Access Control on Uploaded Media Files?

Media isolation indicates that only users in the same group can access or manage media created by other users in the group. The system policies that support media isolation are VOD Group Administrator, VOD Group Operator, and VOD Group Guest. They support both operation permission division and media isolation. For details about media isolation, see [Creating a User and Granting VOD Permissions](#). For details about other system policies provided by VOD, see [Permissions Management](#).

3.3 What Permissions Do I Need for Uploading Media Files?

The system permissions that support media upload include VOD Administrator, VOD Operator, VOD Group Administrator, and VOD Group Operator. You can configure one or more system permissions based on your needs. For details about VOD system permissions, see [Permissions Management](#).

3.4 Does VOD Support User Group Permissions?

Yes. You can use IAM to perform refined permission management on VOD. Different permissions are set for users based on their responsibilities. VOD also

supports media file isolation. That is, only subscribers in the same group can access or manage media files created by other subscribers in the group. For details, see [Service Overview > Permissions Management](#).

3.5 Why Can't an IAM User Log In to the VOD Console After Obtaining the VOD FullAccess Permission?

The authorization is refined by role and policy. Therefore, an IAM user needs to obtain the system role permission before logging in to the VOD console. If only the system policy permission is granted to the IAM user, the user cannot log in to the VOD console. If both the system role and system policy permissions are assigned to the IAM user, the system policy takes precedence over the system policy.

The VOD service supports the following system permissions:

- System policies: VOD FullAccess, VOD ReadOnlyAccess, and VOD CommonOperations.
- System roles: VOD Administrator, VOD Operator, VOD Guest, VOD Group Administrator, VOD Group Operator, and VOD Group Guest.

For details about the system permissions, see [VOD System Permissions](#).

4 Domain Name Management

4.1 Do I Need to Prepare a Domain Name Before Using VOD?

You need to add your own domain name to the VOD service so that the domain name can be used for media file distribution acceleration. For details, see [Configuring a Domain Name](#).

4.2 Can I Use My Own Domain Name?

Yes. You can add your own domain name by referring to [Configuring Domain Names](#) to accelerate media file distribution.

4.3 Why Can't I Add a Domain Name?

Possible causes are as follows:

- The maximum number of added domain names has been reached. You can add up to 5 domain names.
- If your account is in arrears, you need to log in to the [Billing Center](#) to top up your account. Then log in to the VOD console to add the domain name again.

4.4 How Do I Check Whether a Domain Name Has Been Enabled?

Perform the following steps:

Note: It takes about 10 minutes to add your own domain name and enable the CDN acceleration service.

Step 1 Log in to the VOD console.

Step 2 In the navigation pane, choose **Domain Name Management**.

Step 3 In the domain list, check whether the target domain name is in the **Enabled** state. See [Figure 4-1](#).

Figure 4-1 Viewing the domain status

Domain Name	CNAME	Status	Operation
1280.cdn-vod.huaweicloud.com	1280.cdn-vod.huaweicloud.com.c.dnhwc1.com	Configuring	Settings
vod-test.it-ba.com Default	vod-test.it-ba.com.c.dnhwc1.com	Enabled	Settings Enable Disable ..

Upload a video. Choose **Audio and Video Management > Details > Playback**. The playback URL is supposed to contain the domain name. See [Figure 4-2](#).

Figure 4-2 Viewing the playback URL

Basic Information		Playback		Subtitle and Thumbnail Info		Code Example	
Quality	Format	Codec	Resolution	Bitrate	Size	URL	Operation
Raw file	MP4	H.264	640*360	587Kbps	10.96MB	http://vod-test.it-ba.com/asset/0a8aeed33d0aca336f5d717131a9f67b/03b621...	🔗 🔄

----End

4.5 How Many Domain Names Can I Add to One Account?

Five. However, only one domain name is used as the default domain name.

4.6 How Do I Configure HTTPS Secure Acceleration?

If you use the domain name provided by VOD, you do not need to configure this setting because this is enabled by default. If you use your own domain name for VOD acceleration, configure HTTPS secure acceleration by referring to [Configuration Method](#).

4.7 What Can I Do If the Message "The certificate and domain name do not match." Is Displayed During HTTPS Certificate Configuration?

The certificate to be uploaded does not match the corresponding domain name. You are advised to obtain the HTTPS certificate of the corresponding domain name.

4.8 How Do I Use Different Domain Names Simultaneously When Multiple Domain Names Are Configured for VOD?

Currently, only one default domain name can be configured for VOD. If you want to use multiple domain names at the same time, you are advised to copy the streaming URL and manually replace the domain name.

4.9 Why Does the Domain Name Status Remain "Configuring"?

The possible cause is that you have not [submitted a service ticket](#) for review after enabling, disabling, or modifying the URL validation function. After the URL validation function is enabled, disabled, or modified, you need to submit a service ticket for the configuration to take effect.

5 Notifications

5.1 How Do I Configure Event Notifications? Where Can I Set a Message Topic?

VOD event notifications are implemented through Simple Message Notification (SMN). Therefore, you need to configure a message topic and policy on the SMN console for message subscriptions and notifications, and authorize VOD to publish messages to the topic. Then configure notification settings on the VOD console so that you can receive notifications during operations such as transcoding, snapshot capturing, and review. For details, see [Notification Settings](#).

NOTE

After you subscribe to a message topic, the configured subscription endpoint will receive a confirmation message. You need to click **Confirm Subscription** at the endpoint. Then, the configured endpoint can receive messages published by the topic.

5.2 What Are the Callback Notifications Supported by Media File Processing?

Currently, VOD supports event notification on completed transcoding, snapshot capturing, content review, media file creation, audio extraction, and thumbnail generation. For details, see [Notification Settings](#).

5.3 Why Can't I Receive Notifications After Configuring Event Notifications?

Perform the following operations to locate the cause:

- Check whether the server (subscription terminal) can be accessed.
- Check whether the protocols are consistent. For example, if the URL for receiving messages uses HTTP and the server uses HTTPS, the subscription message cannot be received. In this case, change the protocol used by the URL for receiving messages to HTTPS.

If the problem persists, you are advised to [submit a service ticket](#) for technical support.

6 Upload

6.1 What Media File Formats Does VOD Support?

The audio and video files to be uploaded to VOD must be in one of the following formats:

- Video formats: MP4, TS, MOV, MXF, MPG, FLV, WMV, AVI, M4V, F4V, MPEG, 3GP, ASF, and MKV
- Audio formats: MP3, OGG, WAV, WMA, APE, FLAC, AAC, AC3, MMF, AMR, M4A, M4R, WV, and MP2
- Video codecs: H.263, H.264, H.265, MPEG-2, MPEG-4, MJPEG, and ProRes 422
- Audio codecs: AAC, AC3, EAC3, HE-AAC, MP2, MP3, PCM (s161e, s16be, s241e, s24be, DVD), and WMA

6.2 How Are Media Files Uploaded to VOD?

Media files can be uploaded to VOD:

- Via the console
 - **Local Upload**: upload audio and video files stored on local disks to VOD.
 - **URL Pull**: pull source files from their URLs and then upload them to VOD.

6.3 Can I Upload Compressed Video Files?

Video files to be uploaded cannot be compressed. You can use the video transcoding function to reduce the resolution and bitrate and enable low-bitrate HD to change the video file size.

6.4 Is There Any Limit on the File Upload Size?

It is recommended that the size of a single file to be uploaded be no more than 5 GB. Although VOD has no limit on the file upload size, the upload of ultra-large files is more likely to fail due to network problems. In this case, the files may need to be re-uploaded.

6.5 Is There Any Limit on the Total Size of Videos?

No.

6.6 What Is the Maximum Length of a Video File Name?

128 bytes. You can rename a video file when uploading it or on the **Audio and Video Management** page. If the name of the file to be uploaded contains spaces, the spaces will be deleted after the file is uploaded.

6.7 Why Does Video Uploading Take So Long?

It is possible that:

- The network is faulty. You are advised to check the local network.
- A large number of files are being uploaded to VOD and your file is in the queue.

6.8 Why Can't the File Length Be Obtained After a Media File Is Uploaded to VOD?

Possible causes are as follows:

- The uploaded media file has not been parsed completely. VOD returns the length only after the uploaded file has been parsed. Therefore, you are advised to check the length 5 minutes later after the file has been uploaded.
- The uploaded media file does not use one of the following codecs supported by VOD. In this case, you are advised to delete this file and upload it again.

Supported codecs are:

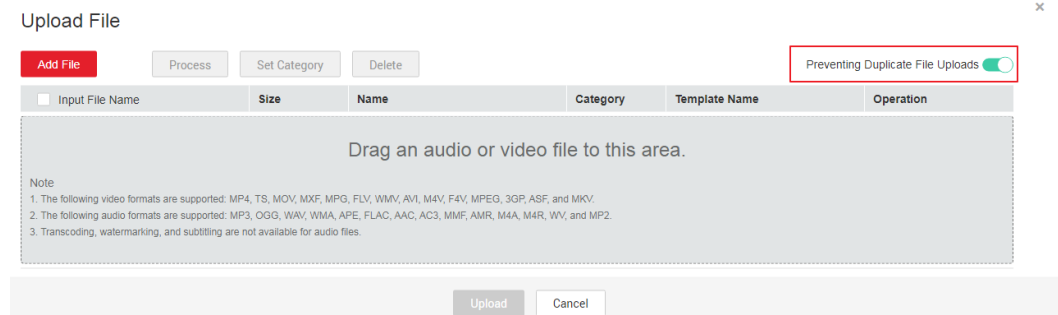
- Video codecs: H.263, H.264, H.265, MPEG-2, MPEG-4, MJPEG, and ProRes 422
- Audio codecs: AAC, AC3, EAC3, HE-AAC, MP2, MP3, PCM (s161e, s16be, s241e, s24be, DVD), and WMA
- Video duration is not displayed on the player: You are advised to use another player for the test or transcode the video.

6.9 Does VOD Support Resumable Upload?

Yes. However, resumable upload depends on the browser cache. If the browser exits abnormally or is manually closed, resumable upload cannot be performed. If the upload fails due to network problems, resumable upload is supported.

6.10 How Do I Avoid Uploading Duplicate Files?

VOD provides upload verification. When uploading audio and video files on the console, switch on **Preventing Duplicate File Uploads**. Then, the system verifies the added audio and video files to check whether the files exist in VOD.



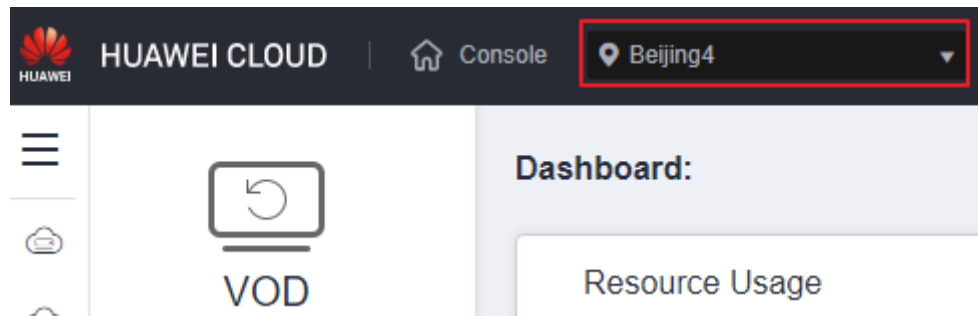
You can also call the API for [Verifying the Upload](#) to check for duplicate files.

6.11 Why Can't I Find My Video on the Console After a Video Has Been Uploaded?

Possible causes are as follows:

- If you did not view the video in the region where the video has been uploaded to, locate the fault by performing the following operations:

Log in to the VOD console and check the region where the video has been uploaded to.



- If the media file is uploaded using an API, call the [Confirming Media Upload](#) API to confirm that the media file has been uploaded.

If the problem persists, [submit a service ticket](#) for technical support.

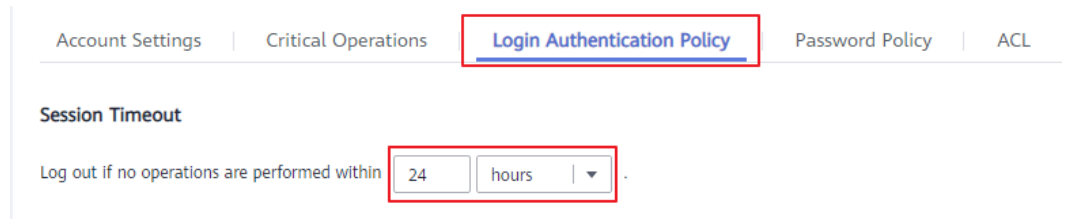
6.12 Why Am I Logged Out Automatically? Will This Cause Upload Failure?

HUAWEI CLOUD provides session timeout settings to enhance your account security. Uploading a large number of audio and video files at a time takes a long time. If no operations are performed during the upload, you are automatically logged out. As a result, the audio and video files fail to be uploaded.

Session timeout is enabled by default (one hour) and cannot be disabled. The administrator can set the session timeout, from 15 minutes to 24 hours. This setting takes effect for the account and IAM users under the account. If you are an administrator, perform the following steps to reset the session timeout and upload the audio and video files again:

1. Log in to the VOD console, move the cursor to the username in the upper right corner, and choose **Security Settings** from the drop-down list.
2. On the **Account Security Settings** page, select the **Login Authentication Policy** tab.
3. Set the session timeout.

For your account security, set the session timeout based on your needs.



6.13 When Can I Play an Uploaded Media File?

How long it takes before a media file can be played is related to its length. If transcoding or a workflow is configured, it is also affected by transcoding or the workflow.

6.14 How Long Does It Take to Upload a Video File?

The time required for uploading a video file depends on the file size and local network status. If too many upload tasks are delivered, the tasks need to line up. Normally, it takes less than 2 minutes to upload a 1 GB video file.

6.15 Why Can't I Upload Media Files?

The possible causes are as follows:

- You have not subscribed to the VOD service in the region, or the VOD service is not available in the region.
If you use APIs or SDKs to upload media files, the upload may fail. You are advised to check whether you have subscribed to the VOD service in the region and whether VOD can be used properly on the console.
- The format of the media file to be uploaded does not meet the requirements.
You need to check whether the format of the media file to be uploaded meets the upload requirements of the VOD service. For details about the supported media file formats and encoding formats, see [What Media File Formats Does VOD Support?](#)
- The account is in arrears.
Log in to the [Billing Center](#) to top up your account. Then log in to the VOD console to upload the media file again.

6.16 Why Is the Thumbnail Not Displayed After Being Uploaded on the Console?

Currently, you can preview audio, video, and thumbnails using only HTTPS. You are advised to configure HTTPS for the default domain name. For details, see [Configuring HTTPS Secure Acceleration](#).

6.17 Can I Upload Videos Using WeChat Mini Programs?

Currently, videos cannot be uploaded using WeChat Mini Programs.

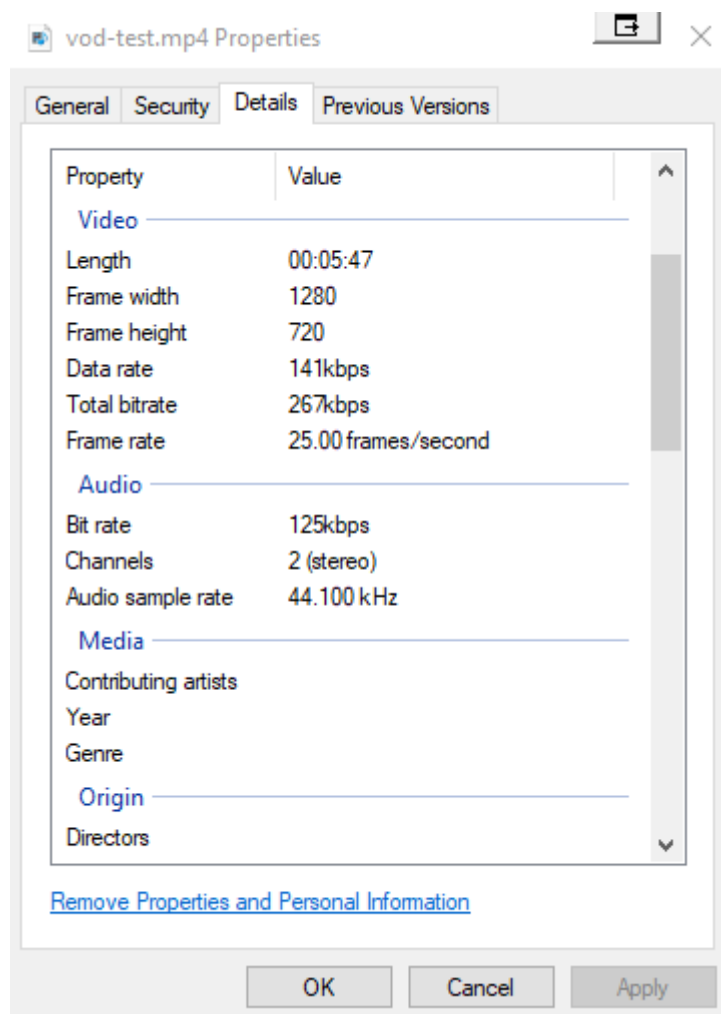
6.18 Do I Need to Upload a Thumbnail for an Uploaded Video?

After a video is uploaded, a thumbnail is generated by default. You can also [upload a custom thumbnail](#) and [extract video frames](#).

7 Media Processing

7.1 How Do I View Video Details Locally?

In the Windows OS, right-click a video and choose **Properties** > **Details** from the shortcut menu. The details about the video to be uploaded are displayed, as shown in the following figure.



You can also use a video analysis tool such as MediaInfo to open the video to be uploaded and view more details about the video.

7.2 How Do I Add Subtitles to a Video?

Only SRT subtitle files in UTF-8 can be uploaded. Subtitles are added to a video during transcoding.

Step 1 Log in to the VOD console.

Step 2 In the navigation pane, choose **Audio and Video Management**.

Step 3 Click **Details** in the row containing the target video. On the displayed page, click the **Basic Information** tab.

Step 4 Click **Edit** and **Upload Subtitle File**, and then select a local subtitle file.

Basic Information
Playback
Subtitle and Thumbnail Info
Code Example

Thumbnail	<p style="color: red; font-size: small;">Note: The thumbnail will take effect within 3 to 5 minutes once added.</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="width: 60px; height: 60px; background-color: black; border: 1px solid #ccc;"></div> <div style="width: 60px; height: 60px; border: 1px dashed #ccc; border-radius: 5px; display: flex; align-items: center; justify-content: center;"> </div> </div>
Subtitle	<div style="text-align: center; margin-bottom: 5px;"> Upload Subtitle File </div> <p style="font-size: x-small; color: #666;">Upload an SRT file in UTF-8. You can add subtitles to a transcoded video file.</p>
Duration	00:02:11
Created	2020/8/3 14:58:57
Size	10.96MB
Last Updated	2020/8/3 15:02:05
Category	Other Set Category
Label	<input style="width: 100%; border: 1px solid #ccc; padding: 2px 5px;" type="text" value="Enter a label."/> <p style="font-size: x-small; color: #666;">Enter a maximum of 16 labels and separate them with commas (.). Each label can be up to 16 bytes long.</p>
Name	<input style="width: 100%; border: 1px solid #ccc; padding: 2px 5px;" type="text" value="The.Croods"/> <p style="font-size: x-small; color: #666;">Enter a maximum of 128 bytes.</p>
Description	<div style="border: 1px solid #ccc; height: 40px; width: 100%;"></div>

Save
Cancel

Step 5 Click **Save**.

Step 6 Return to the **Audio and Video Management** page. Select the video and click **Transcode** to transcode the video again and add subtitles.

Step 7 Choose **Details > Subtitle and Thumbnail Info** to obtain the subtitle file URL.

----End

7.3 How Do I Export All Media Details from the VOD Console?

After audio and video files are **uploaded**, you can export all or specified audio and video files on the **Audio and Video Management** page. Proceed as follows:

Step 1 Log in to the VOD console.

Step 2 In the navigation pane, choose **Audio and Video Management**.

Step 3 Above the audio and video list, click **Export**. By default, details about all media files are exported.

Select one or more audio and video files and click **Export** to export details about the selected media files.

File details include the media ID, media name, media status, label, category, resolution, playback URL, thumbnail, and subtitle URL.

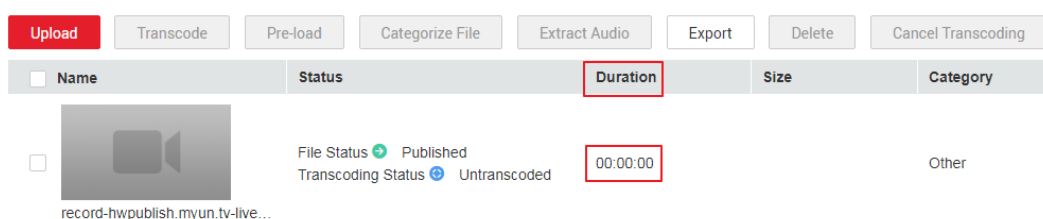
----End


7.4 Why Can't I View All Uploaded Video Files on the Snapshots Page?

The **Snapshots** page displays only video files that support snapshot capturing, that is, videos in FLV, MP4, TS, MOV, MXF, MPG, WMV, AVI, M4V, F4V, and MPEG formats. To view all audio and video files, go to the **Audio and Video Management** page.

7.5 Does the Duration on Audio and Video Management Page Refer to the Duration of the Input File or the Transcoded Output?

Duration of the input file. If the value in the **Duration** column is still **00:00:00** after a file has been uploaded for a period of time, the input file may be corrupt. As a result, the video duration fails to be parsed.



<input type="checkbox"/>	Name	Status	Duration	Size	Category
<input type="checkbox"/>	 record-hwpublish.myun.tv-live...	File Status ✔ Published Transcoding Status ⚙ Untranscoded	00:00:00		Other

7.6 Does VOD Have System Presets?

To help you get started with transcoding quickly, VOD provides some common video transcoding templates and packaging templates. See [Table 7-1](#). For details, see [Transcoding Settings](#).

Table 7-1 System presets

Name	Description	Application Scenario
non_transcoding_template_group	Non-transcoding template group	This preset is used when you do not need transcoding.
system_template_group	Video transcoding template group. It has six built-in definitions: 4K, 2K, UHD, HD, SD, and LD.	This preset is used when you do not know how to set the resolution, width, height, and bitrate. This template allows you to quickly select the image quality, format, and watermark.
original_temate_group	Packaging template. This only changes the container formats of audio and video files.	This preset is used when you do not need to change the width, height, and bitrate.
adaptive_template_group	Adaptive video template group. The resolution and bitrate can be edited.	This preset is used when you need transcoding and image enhancement both.

7.7 Which Input Formats Does VOD Transcoding Support?

The following file formats and codecs are supported:

- File formats: MP4, TS, MOV, MXF, MPG, FLV, WMV, AVI, M4V, F4V, MPEG, 3GP, ASF, and MKV
- Codecs: H.263, H.264, H.265, MPEG-2, MPEG-4, MJPEG, WMV, and Proress422

7.8 Which Output Formats Does VOD Support?

VOD provides transcoding and packaging. Output formats for transcoding and packaging are different:

- Transcoding
Video files can be transcoded into DASH, HLS, and MP4 files, and audio files can be transcoded into MP3 and ADTS files.
- Packaging

- Media files in FLV and HLS formats can be packaged into MP4.
- Media files in MP4, FLV, and MP3 formats can be packaged into HLS.

7.9 How Do I Convert a Video to Multiple Outputs in Different Resolutions?

VOD can output a maximum of six video files with different resolutions and bitrates at a time. You can add the output specifications to a custom transcoding template. For details, see [Transcoding Settings](#).

Quality	Resolution (Width x Height) ?	Bitrate ?	Operation
HD	1280 * 720	1500	
SD	854 * 480	900	
2K	2560 * 1440	7000	
+ Add			

7.10 Can I Use Multiple Transcoding Templates for a Video While Transcoding?

No. If you need to transcode a video file into multiple outputs with different specifications, you are advised to create a one-in multiple-out transcoding template. For details, see [Transcoding Settings](#).

7.11 Will I Be Billed for the Index File Generated After Transcoding to the HLS Format?

No. If you set the transcoding output format to HLS, a general index file will be generated after transcoding. The general index file is used for adaptive playback of multi-bitrate HLS videos. For details, see [Transcoding Settings](#).

Basic Information		Playback	Subtitle and Thumbnail Info		Code Example		
Quality	Format	Codec	Resolution	Bitrate	Size	URL	Operation
Raw file	MP4	H.264	640*360	587Kbps	10.96MB	http://vod-test.it-ba.com/asset/0a8aeeed33d0aca336f5d717131a9f67b/03b621...	
Total Index	HLS	H.264	--	--		http://vod-test.it-ba.com/asset/0a8aeeed33d0aca336f5d717131a9f67b/play_vid...	
LD	HLS	H.264	480*270	298Kbps	5.79MB	http://vod-test.it-ba.com/asset/0a8aeeed33d0aca336f5d717131a9f67b/play_vid...	

7.12 Why Is the Output Resolution Inconsistent with That Configured in the Transcoding Template?

VOD does not support video transcoding from a low resolution to a high resolution. If the resolution set in the transcoding template is higher than the original resolution, the original resolution is used for output.

7.13 Why Is Transcoding Sometimes Fast and Sometimes Slow?

This is related to the number of transcoding tasks. If multiple users are delivering a large number of transcoding tasks at the same time, the transcoding will take longer time. If there are too many transcoding tasks, you have to wait in queue.

7.14 Does the Input Resolution for Video Transcoding Support 8K?

Yes. The maximum input resolution for video transcoding is 8K, and the maximum output resolution is 4K.

7.15 Does Transcoding Change the Size of Audio and Video Files?

Yes. The sizes of audio and video files are related to the codec, resolution, bitrate, and frame rate. Therefore, the sizes of audio and video files vary according to the transcoding parameters that you set.

7.16 Why Do I Fail to Delete a Media File?

The media file you are going to delete is being transcoded, reviewed, or captured. VOD cannot delete media files in any of those states.

7.17 Why Only Two Outputs Are Created When Three Outputs Are Set in the Transcoding Template?

It is possible that the resolution set in the transcoding template is higher than the original resolution. VOD cannot transcode a video from a low resolution to a high resolution. If the resolution set in the transcoding template is higher than the original resolution, the original resolution is used for output. If two configured resolutions are both higher than the original resolution, only one output with the original resolution is created. For details, see [Transcoding Settings](#).

7.18 Does VOD Support Transcoding Callbacks?

Yes. VOD uses Simple Message Notification (SMN) to provide event notifications on completed transcoding. Before audio and video transcoding, you can [configure event notifications](#). After the configuration is complete, you can receive a message notification on completed transcoding.

The following types of messages can be received:

- **Template message:** If **Template message** and **JSON message** are both selected, you will receive template messages via SMS and email, and receive JSON messages via HTTP and HTTPS.

Table 7-2 Template message

Event	Message Body
Transcoded	Dear user, your video transcoding task has been completed. Video ID: {asset_id}; name: {title}. Log in to the VOD console or call a VOD API to view transcoding details.
Streaming failed	Dear user, an error occurred when processing your video transcoding task. Video ID: {asset_id}; name: {title}; error code: {err_code}; error information: {err_msg}.

- **JSON message:** For details about the message body and description, see [Transcoding Message Body](#).

7.19 Why Is the Video Duration Different from That Displayed in the Player After Video Transcoding or Segmentation?

The video duration includes the container duration, audio and video stream duration, and playback duration after decoding. If these values are different, the displayed duration varies with players.

You can run FFmpeg commands to view the duration of each value.

- To obtain the container duration, run the following command:

```
ffprobe -v error -show_entries format=duration -of default=noprint_wrappers=1:nokey=1 -i example.mp4
```
- To obtain the audio and video stream duration, run the following command:

```
ffprobe.exe -v error -select_streams v:0 -show_entries stream=duration -of default=noprint_wrappers=1:nokey=1 example.mp4
```
- To obtain the playback duration of a decoded file, run the following command:

```
ffmpeg -i example.mp4 -f null -
```

7.20 Why Does CDN Pre-loading Fail?

Perform the following operations to locate the cause:

- Check whether URL validation has been configured. If yes, use the signed URL for pre-loading. Otherwise, the pre-loading will fail.
- Check whether referer validation has been configured. If yes, select **Include blank referer**. Otherwise, the pre-loading will fail.

If the problem persists, you are advised to [submit a service ticket](#) for technical support.

7.21 Why Can't I Delete a Watermark Template?

If a watermark template is configured for the transcoding template, as shown in the following figure, the watermark template cannot be deleted. To delete a watermark template, you need to disassociate the watermark template from the transcoding template.

The screenshot shows a configuration interface for video parameters. At the top, there is a section titled "Video Parameters" with a sub-option "Audio only" which is unchecked. Below this, there are several settings:

- "Video Codec" is set to "H.264" (selected with a radio button) and "H.265" is unselected.
- "Frame Rate" is a text input field with a placeholder "The value must be an integer ranging from 1 to 75." and a unit "fps".
- "Low Bitrate HD" is a dropdown menu currently set to "Disabled". Below it, a note states: "After Low Bitrate HD is enabled, transcoding is charged based on the rates of low bitrate HD. [Learn more](#)".
- "Watermark Template" is a dropdown menu currently set to "Default". This dropdown is highlighted with a red rectangular box.

Below the "Watermark Template" dropdown, there is a small note: "Selecting Default watermark means that [Watermark Settings](#) if you have configured one on the Watermark Settings page."

8 Playback

8.1 What Are the Differences Between DASH, HLS, and MP4 Files?

Table 8-1 lists the differences between DASH, HLS, and MP4 files.

Table 8-1 Differences


Video Format	Playback Experience	Traffic Usage
DASH	<ul style="list-style-type: none">• Videos are segmented and played by segment. Videos start quickly with less freezing.• If you drag the time axis to any time point, the corresponding segment can be quickly located and played.	Small
HLS	<ul style="list-style-type: none">• Videos are segmented and played by segment. Videos start quickly with less freezing.• If you drag the time axis to any time point, the corresponding segment can be quickly located and played.	The overall traffic usage is low because only the segment is downloaded if you want to play a single segment. If a video is at a low bitrate, traffic usage is relatively high due to high packaging costs.




Video Format	Playback Experience	Traffic Usage
MP4	<ul style="list-style-type: none"> • Large-size header files and caching while downloading. MP4 videos start slower than HLS and DASH videos. • If you drag the time axis to any time point, it takes some time to cache. • Most browser clients can play MP4 videos. 	<p>If you drag the time axis to any time point, the entire header file needs to be downloaded. This leads to high traffic usage. Therefore, you are advised to use MP4 when you need to process short videos.</p>

8.2 How Do I Obtain the Streaming URL of a Media File?

Before obtaining the streaming URL of a media file, ensure that **domain name acceleration** and **HTTPS secure acceleration** have been configured.

To obtain the streaming URL of a media file, perform the following steps:

1. Log in to the VOD console.
2. In the navigation pane, choose **Audio and Video Management**.
3. Click **Details** in the row containing the target file and click the **Playback** tab.
4. Obtain the playback URL in the **URL** column. If URL validation is configured, click  in the **Operation** column to obtain the authentication URL.

Basic Information		Playback	Subtitle and Thumbnail Info		Code Example			
Quality	Format	Codec	Resolution	Bitrate	Size	URL	Operation	
Raw file	MP3	--	--	125Kbps	951.71KB	http://vod-test.it-ba.com/asset/7b69554a4ccb1b5d318d42811025e4b/43e675...		
Total Index	ADTS	UNKNOWN	--	--	1.04MB	http://vod-test.it-ba.com/asset/7b69554a4ccb1b5d318d42811025e4b/play_vl...		

You can also call the VOD **API** to obtain the streaming URL.

8.3 How Do I Play Media Files on a Mobile Device?

Enter the streaming URL in the address box of a mobile browser.

8.4 Which Types of Files Can Be Previewed on the VOD Console?

You can preview MP4, FLV, HLS, and DASH files using H.264 codec, and MP3 and ADTS files on the VOD console.

8.5 What If I Failed to Play HLS Videos?

Install the Native HLS Playback plug-in.

For example, if you want to use Chrome to play HLS videos, download the Native HLS Playback plug-in from Google Play Store.

8.6 How Do I Stop HLS Videos from Freezing?

You are advised to locate the fault from the following aspects:

- Whether the played video file is corrupt. Play another HLS video and check whether the video freezes.
- Whether the video is played on a low-end device or whether the network connection is bad. If it is, replace the playback device or fix the network.
- Check whether CDN pre-loading is performed on the uploaded video. You can perform CDN pre-loading on the [console](#) or by [calling APIs](#).
- If a transcoded video is played, check whether the resolution and bitrate of the transcoded video are within the proper ranges. You are advised to use the [recommended resolution and bitrate](#).

If the problem persists, [submit a service ticket](#).

8.7 What If the Uploaded Video File Can't Be Played?

Possible causes are:

NOTE

If the video cannot be previewed on the console after being uploaded, the possible cause is that the uploaded video has not been parsed completely. You are advised to wait for 2 to 3 minutes, refresh the page, and try again.

- If you set a self-owned domain name as the default domain name, you must [configure an HTTPS certificate](#). Otherwise, you cannot preview and play video on the console.
- The format of the original file may not be supported. The VOD console supports MP4, FLV, HLS, DASH, MP3, and ADTS and H.264 codec. You can use the [transcoding](#) function of VOD to transcode the original file and then play the file.
- You have a poor network connection. Check your network connection and fix it.
- Your domain name may not be enabled. Check whether the default domain name is enabled on the **Domain Name Management** page of the VOD console.
- CNAME may not be configured for the domain name. If CNAME is not configured, configure it by referring to [Configuring CNAME Records \(Huawei Cloud\)](#).

If the problem persists, [submit a service ticket](#).

8.8 Can I Create a QR Code for My Video Playback URL?

No. If you have such requirement, download a QR code generator to create a QR code for your playback URL.

8.9 Do I Need to Transcode an Uploaded Video Before Playing It?

You may fail to play the input video due to unsupported codec. Therefore, you are advised to transcode it and then play it.

8.10 Why Does a Video Fail to Be Played Using My Own Domain Name?

Check:

- Whether an HTTPS certificate has been configured for your own domain name.

The default streaming URL of VOD uses HTTPS. If the URL is not configured, video cannot be played on the VOD console or browser.

- a. Log in to the VOD console. In the navigation pane, choose **Domain Name Management**.
- b. Locate the row that contains the default domain name, click **Settings** in the **Operation** column, and select **HTTPS Settings**.

If HTTPS acceleration is disabled, enable HTTPS acceleration and upload the HTTPS certificate. For details, see [Configuring HTTPS Secure Acceleration](#).

- The CNAME has not been configured. Configure it by referring to [Configuring CNAME Records](#).

Open the command line interface that comes with Windows and run the following command:

```
nslookup -qt=cname Acceleration domain name
```

If the CNAME is displayed, the CNAME has taken effect. A typical command output is shown in the following figure.



```
C:\Users\>nslookup -qt=cname videoinfo-push.hwcloudlive.com
Server: anycast-dns.huawei.com
Address: 10.10.10.10

Non-authoritative answer:
videoinfo-push.hwcloudlive.com canonical name = c.cdnhwc3.com
```

- The format of the uploaded file is incorrect. Transcode the file and then play it again.

If the problem persists, [submit a service ticket](#) to reach technical support.

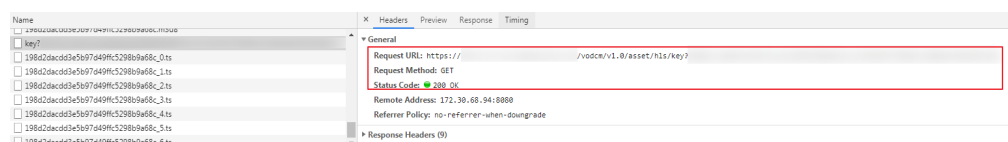
8.11 Can I Play a Video If I Don't Buy a Transcoding Package?

Yes, but you may fail to play an input video due to unsupported codec. You are advised to transcode the video and then play it. However, you do not need to buy a transcoding package. You can be billed on a pay-per-use basis.

8.12 Why Does the Encrypted HLS Video Playback Failed?

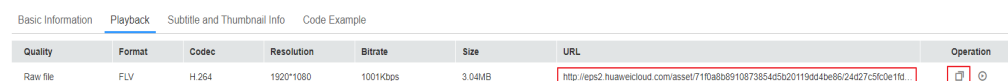
Possible causes are as follows:

- The decryption key cannot be obtained. The possible cause is that the URL for obtaining the key is incorrect. You can press **F12** when previewing an encrypted HLS video on the console to check whether the response of the API for obtaining the key is normal.



For details about HLS encryption, see [Using HLS Encryption to Prevent Video Leakage](#).

- URL validation has been configured, but the signed URL is not used for playback. Choose **Domain Name Management > Settings > Hotlink Protection Settings** on the VOD console to check whether URL validation has been configured. If yes, you need to obtain the signed streaming URL on the **Audio and Video Management** page to play the video.

A screenshot of the VOD console's Audio and Video Management page. The 'Playback' tab is active, showing a table with columns: Quality, Format, Codec, Resolution, Bitrate, Size, URL, and Operation. The first row shows a 'Raw file' with Format 'FLV', Codec 'H.264', Resolution '1920*1080', Bitrate '1001Kbps', Size '3.04MB', and a signed URL: http://eips2.huaweicloud.com/asset/71f0a8b69108738545b20119d14b68624d27c5c0e1fd. The URL column is highlighted with a red box.

- You can also clear the cache of the key management server and play the encrypted HLS video again.
- After the HLS encryption service is enabled, a key can be obtained but cannot be used for playback. The possible cause is that the obtained key is not encoded and decoded using Base64. Check whether the obtained key uses standard Base64 for codec. For details, see [Protecting Videos with HLS Encryption](#).

8.13 Is There Any Limit on the Number of Online Viewers?

VOD does not limit the number of concurrent online viewers. In addition, the media file distribution acceleration function is enabled for VOD by default. Subscribers can watch video as long as the network conditions meet the requirements.

8.14 Why An Error Code 403 Is Returned When I Access the Playback URL?

Hotlink protection may be enabled. You are advised to check whether [referrer validation](#) or [URL validation](#) is enabled.



- If referer validation is enabled, check whether the client is added to the blacklist or not added to the whitelist.
- If URL validation is enabled, check whether the playback URL is the authentication URL rather than the original playback URL and whether the authentication URL has expired.

8.15 Can I Use My Own Player to Play Media Files Uploaded to VOD?

Yes. Add the obtained streaming URL to your player. You can obtain the streaming URL on the [VOD console](#) or using [API](#).

8.16 Can I Replace the Domain Name in the Generated Playback URL with My Own Domain Name?

Yes. [Add your licensed domain name, configure CNAME](#), and set the licensed domain name as the default one on the [Domain Name Management](#) page. Choose [Audio and Video Management > Details > Playback](#). Then you will see the domain name in the playback URL has been changed to the added domain name.

Basic Information		Playback	Subtitle and Thumbnail Info		Code Example		
Quality	Format	Codec	Resolution	Bitrate	Size	URL	Operation
Raw file	MP4	H.264	640*360	587Kbps	10.96MB	http://vod-test.it-ba.com/asset/0a6aeed33d0aca336f5d717131a9f67b03b621...	 

8.17 How Do I Fix a Blurry Video?

Incorrect resolution and bitrate settings may lead to to video blurring. You are advised to configure the recommended resolution and bitrate before transcoding.

Table 8-2 Recommended resolutions and bitrates

Quality	Recommended Resolution	Recommended Bitrate for H.265 (kbit/s)	Recommended Bitrate for H.264 (kbit/s)
4K	3840x2160	5600	8000
2K	2560x1440	4900	7000
UHD	1920x1080	2100	3000

Quality	Recommended Resolution	Recommended Bitrate for H.265 (kbit/s)	Recommended Bitrate for H.264 (kbit/s)
HD	1280x720	700	1000
SD	854x480	500	600
LD	480x270	200	300

8.18 Why Can't I Obtain the Streaming URL of a Transcoded Video?

The possible cause is that no domain name is configured or the domain name is disabled. If no domain name is configured, add the licensed domain name to the VOD service. For details, see [Configuring Domain Names](#). If the domain name is disabled, you are advised to enable the default domain name. Obtain the streaming URL on the page.

8.19 Why Does Frame Freezing Occur During the Playback of a Transcoded Video?

The possible cause is that the transcoded media file is not pre-loaded. As a result, when the first subscriber accesses the file, they need to obtain the file from the VOD origin server. You are advised to pre-load the media file on the VOD console or by calling APIs to distribute the media file to CDN nodes. In this way, the cache can be directly hit upon the first access, which prevents frame freezing during the first playback.

8.20 Why Cannot a Transcoded M3U8 Video Be Played After URL Validation Is Configured?

The possible cause is that an algorithm other than algorithm D is used during URL validation configuration. Algorithms A, B, and C do not support HLS and DASH playback. Algorithm D is recommended.

8.21 Why Can't an Encrypted HLS Video Be Played After Being Transcoded for the Second Time?

The possible cause is that the key cache is configured on the encrypted HLS server. The Key Management Service (KMS) can cache the queried key locally. When another playback device requests the key next time, KMS can directly return the key without obtaining the key from the VOD service each time. Therefore, if the decryption key changes after transcoding, the cache needs to be cleared to obtain a new key.

9 APIs and SDKs

9.1 How Do I Obtain a Temporary AK/SK Pair and Security Token?

Call the IAM API for [Obtaining a Temporary Access Key and Security Token Through a Token](#).

If 404 is returned when you [obtain a temporary access key and securityToken through a token](#), MFA verification may have been enabled for your account. For details, see [How Do I Unbind or Remove a Virtual MFA Device?](#).

9.2 Why Is the File Duration Returned 0 When I Call the API for Querying Media Details?

It is possible that:

- You query file details not long after a media file is uploaded. VOD needs some time to parse this file. You are advised to query file details five minutes later after a file has been uploaded.
- The source file is corrupt. As a result, the duration fails to be obtained during parsing.
- A delay occurs on the local network. As a result, the duration cannot be obtained during parsing.

9.3 How Do I Fix the Error of "Failed to verify the tenant ID" When I Call a VOD API?

The possible causes are as follows:

- The **scope** of the token obtained by calling the IAM API is set to **domain** (global-level service). Because VOD is a project-level service, the scope needs to be changed to **project**.

- The project ID used to call the IAM API for obtaining the token is different from that used for calling the VOD API. You can call the VOD API by referring to [Getting Started](#).

9.4 Why Is "The throttling threshold has been reached" Returned When I Call an API to Delete a Media File?

The maximum number of API calls for [Deleting Media Files](#) has been reached. To prevent service interruption due to repeated API calls within a short period, API rate limiting is configured for VOD. The number of API calls for deleting media files cannot exceed 100 per minute and the maximum number of all API calls are 1,000 per minute. For details about rate limiting, see [Video on Demand API Reference](#).

9.5 Does task_id Returned Mean that My Pre-loading Task Has Been Completed?

No. When you call an API for [pre-loading media](#) and `task_id` is returned, this means that the pre-loading task has been submitted. It takes 3 to 5 minutes to pre-load content. You can call the API for [querying pre-loading results](#) to check whether the pre-loading task has been completed.

9.6 What Should I Do If the Frequency of Calling the Key Query API Exceeds 100 Times per Minute?

The key can be cached locally. When setting up the KMS on your service server, you can configure the cache function. After obtaining the key for the first time, you can cache the key. When there are subsequent decryption requests of the same media file, you can directly obtain the key from the KMS without calling the key query API each time. For details, see [Protecting Videos with HLS Encryption](#).

9.7 Why Is a Message Displayed Indicating that the Current Media File or Resource Status Does Not Support This Operation During Media File Processing?

The possible cause is that a conflict occurs during media processing. The next action cannot be executed because the previous process is not complete. You are advised to wait for several minutes after the previous media file processing task is complete and then execute a new media file processing task.

9.8 What Are the Programming Languages Supported by the Server SDK?

SDK V3 supports Java, Python, Go, Node.js, .Net, and PHP. You can log in to the [SDK center](#) to download the desired SDK. For details, see [SDK Overview](#).

9.9 Why Are the `source_path` and `output_path` Parameters Empty in the Return Result When the API for Querying Details About a Specified Media File Is Called?

If the queried media files are pulled through a URL or hosted by OBS to VOD, the media file storage information such as the original bucket path or URL is returned. If the queried media files are uploaded locally, the media files are stored in the VOD bucket. By default, the media file storage information is not returned. That is, the `source_path` and `output_path` parameters are left empty.

9.10 How Do I Delete an Uploaded Multipart Video If the Upload Is Canceled When the API Is Called to Upload a Video?

To delete an uploaded video segment, call the API for [Confirming Media Upload](#) and set the upload status parameter `status` to `CANCELLED`.

9.11 Why Can't I Obtain the Thumbnail After Calling the API for Uploading a Video File?

By default, the first-frame snapshot is used as the thumbnail during video upload. If the image type parameter `cover_type` has been configured, the first-frame snapshot will not be used as the thumbnail. You need to upload a thumbnail.

9.12 How Do I Set the Validity Period of the AK/SK and Security Token?

The validity period of the temporary AK/SK and security token ranges from 15 minutes to 24 hours. After the validity period expires, you need to obtain new temporary AK/SK and security token. You can configure `duration_seconds` to set the validity period. For details, see the API for [Obtaining a Temporary Access Key and SecurityToken Through a Token](#).

9.13 Why Can't I Preview the Watermark Image on the Console After Calling the API for Image Upload?

Perform the following operations to locate the cause:

- Check whether the HTTPS certificate has been configured for the added domain name.

- Check whether the values of parameters such as the horizontal offset and vertical offset are too large.
- Check whether the image format has been changed. For example, the source image format is JPG but the image is named PNG.

If the problem persists, you are advised to [submit a service ticket](#) for technical support.

10 Security

10.1 How Do I Protect Audio and Video from Piracy?

VOD provides security policies such as playback authentication and video encryption to protect your copyrighted audio and video.

- Playback authentication: VOD provides referer validation and URL validation to control who can access the distributed audio and video files, preventing unauthorized users from downloading or playing VOD content by using playback URLs. For details, see [Configuring Hotlink Protection to Control Who Can Play Media](#).
- HLS encryption: VOD encrypts HLS videos to prevent video leakage and hotlinking. With HLS encryption enabled, encrypted videos cannot be distributed to others even if they are downloaded by malicious users. For details about HLS encryption, see [Protecting Videos with HLS Encryption](#).

10.2 How Do I Prevent Secondary Distribution After Audios and Videos Are Downloaded?

VOD provides HLS encryption. You can enable HLS encryption during transcoding. If this function is enabled, transcoded HLS videos will be encrypted. When end users request to play a video, you can verify user identity on the app server. Only verified users can obtain the decryption key and use the key to request VOD to decrypt and play the video. For details about HLS encryption, see [Protecting Videos with HLS Encryption](#).

10.3 Does HLS Encryption Provide One Key for Each Video? Will the Key Expire?

Yes. One HLS video corresponds to one key, which will never expire. If the video is re-encrypted, a new key will be generated. For details, see [HLS Encryption Settings](#).

10.4 How Do I Encrypt Transcoded Videos Using HLS?

HLS encryption is performed during transcoding. To encrypt transcoded videos using HLS, you need to transcode the videos again and enable **Encryption** in the transcoding template. For details, see [Transcoding Settings](#).

10.5 What Is a Key URL? How Do I Obtain It?

Key URL is the address of the key management server you set up. The player will send a key acquisition request to the URL. Your key management server authenticates users and return keys only to authenticated devices. For details, see [HLS Encryption Settings](#).

10.6 What If the URL Validation Expires?

If the URL validation expires, the signed URL becomes unavailable. You need to update URL validation settings to create a signed URL. For details, see [URL Validation](#).

10.7 Can Audio Files Be Encrypted During HLS Encryption?

Yes. However, you need to transcode the audio files to the HLS format. Configure a transcoding template as highlighted in [Figure 10-1](#).

Figure 10-1 HLS transcoding template

The screenshot displays the configuration interface for an HLS transcoding template. It is divided into three main sections: Basic Information, Video Parameters, and Audio Parameters. In the Basic Information section, the 'Output Format' is set to 'HLS' and the 'Encryption' toggle is turned on. In the Video Parameters section, 'Audio only' is selected. In the Audio Parameters section, the 'Audio Codec' is set to 'AAC', the 'Audio Channel' is 'Stereo', and the 'Sampling Rate' is 'AUTO'. The 'Bitrate' field has a placeholder text: 'The value is 0 or an integer within this range, 8-1,000 kbit/s'.

NOTE

Before transcoding, you need to set up the key management service and [configure the key URL](#).

10.8 What Are the Differences Between HLS Encryption and Hotlink Protection?

HLS encryption: TS data in the M3U8 file is encrypted. Before playback, the player requests the encryption key via the encryption key address and it can play audio and video only after the correct decryption key is obtained.

URL validation: An authentication string is added to the playback URL. Only a valid authentication URL can pass the verification and be played. Due to the validity period of the authentication string, the content can be played only within the specified validity period, which can effectively prevent unauthorized playback.

Referer validation: Only users using domain names in the whitelist or not in the blacklist can pull video resources.

Table 10-1 Differences

Security Mechanism	Security Measure	Characteristics	Security Level	Usage Threshold
Referer validation	Referer blacklist and whitelist	Control request sources based on HTTP request headers. However, HTTP request headers are easy to be forged.	Low	Low. This can only be configured on the console. For details, see Configuring Hotlink Protection to Control Who Can Play Media .
URL Validation	URLs that expire	Append a time-sensitive authentication string to the playback URL.	Medium	Low. After this is configured on the console, an authentication URL can be directly obtained from the console or created by setting parameters. For details, see Configuring Hotlink Protection to Control Who Can Play Media .
HLS encryption	HLS AES encryption	Content is encrypted with the AES-128 standard. All HLS players are supported.	High	High. You need to deploy the Key Management Service (KMS) and token generation service. For details, see Protecting Videos with HLS Encryption .

10.9 Can Encrypted Videos Be Played After the URL for Obtaining Keys Is Changed?

If the original URL for obtaining the key is still valid, the encrypted video can still be played. If the original URL for obtaining the key is no longer used, configure a new URL on the console and [transcode](#) the video again. Otherwise, the video fails to be played.

10.10 Will a Signed URL Become Invalid During Playback?

A signed URL only verifies the playback request. If the signed URL is within the validity period, the playback request can be authenticated. The playback will fail because the signed validity period of the signed URL expires. To avoid this, do not refresh the page during the playback.

10.11 Why Does the Encrypted HLS URL in the Original Streaming URL Remain Unchanged After the Encrypted HLS URL Is Changed?

If the URL for obtaining the key is changed, you need to re-encrypt the video. Otherwise, the new encryption key does not take effect.

10.12 Does VOD Support the Function of Only Watching Videos on CloudSite But Not Downloading Them?

To prevent video leakage and link theft, the VOD service supports HLS video encryption. Encrypted videos cannot be distributed to others even if malicious users download them. Currently, only FLV and MP4 videos can be uploaded on PCs to CloudSite, and only MP4 videos can be uploaded on mobile devices. Therefore, the function of watching videos but not downloading videos cannot be implemented.

10.13 Are Self-Signed HTTPS Certificates Supported?

No. You are advised to purchase a certificate with a trusted root domain. For details about HTTPS certificate requirements, see [HTTPS Certificate Requirements](#).

11 Statistics Analysis

11.1 Which Statistics Can Be Viewed on the VOD Console?

On the VOD console, you can view the traffic, peak bandwidth, storage space, and transcoding duration.

- Statistics on traffic usage by domain name in different time segments
- Statistics on bandwidth usage by domain name in different time segments
- Top 100 media files by domain name
- Statistics on the storage space used in different time segments
- Statistics on the length of output audio and video files in different time segments

11.2 What Is the Traffic Hit Ratio?

Traffic hit ratio = Traffic consumed to hit the cache/Total traffic

Total traffic = Traffic consumed to hit the cache + Traffic consumed for retrieving content from origin servers

11.3 What Is the Cache Hit Ratio?

The cache hit ratio refers to the probability that playback requests hit the CDN cache in a period of time.

Cache hit ratio = Number of requests that hit the cache/Number of total requests

11.4 What Are Total Requests?

Total requests are the total number of requests received by CDN in a period of time. They include the requests from HUAWEI CLOUD VOD players, web pages, and your own players. Total requests are also related to the format of the

requested file. If the requested file format is MP4, total requests are the number of times that the file is played. If the requested file is in HLS format, total requests include the number of requests for M3U8 and TS segments.