

# ApsaraVideo Live

## User Guide

# User Guide

## Console

Function	Description
ApsaraVideo Live CDN domain management	Supports creation and deletion of ApsaraVideo Live CDN domain names.
Live video transcoding setting	Creates different transcoding templates for different AppNames.
Live stream management	Queries real-time live streams and historical live streams.
Live stream blacklist management	Sets and deletes stream blacklists.
Set NotifyUrl	Sets the target URL of live stream information push.

## API

Function	Description
Query online users	Gets the number of online users of the RTMP live stream. Query by domain name or stream is supported.
Query streaming blacklist	Gets the blacklist of the currently played live stream under the domain name.
Query stream control history	Gets the operation history of a live stream under a domain name or application.
Query the live stream frame rate and bit rate	Gets the frame rate and bit rate history of a live stream. Query by domain name or stream is supported.
Query streaming list	Views the information of all the streams being pushed under a specific domain name (or an application under a specified domain name).
Query streaming history	Views the streaming history of a domain name (or an app under the domain name) within a period of time.
Disable live streaming	Disables the push of a stream. You can set a time to resume the streaming.
Resume live streaming	Resumes the push of a stream.
Set NotifyUrl	Sets the target URL of live stream information

	push.
--	-------

The restrictions of Alibaba Cloud ApsaraVideo Live are as follows:

#### Live video CDN domain

You can create up to 20 live video CDN domains under each account. If you have higher requirements, [open a ticket](#) to contact Alibaba Cloud technical support.

#### Concurrent live streams

Each live video CDN domain under each account can push up to 20 original (non-transcoded) live streams concurrently. If the transcoding function is enabled, each CDN domain can push up to 10 transcoded live streams. If you have higher requirements, [open a ticket](#) to contact Alibaba Cloud technical support.

#### Streaming

ApsaraVideo Live does not limit the stream bit rate. It supports common resolutions and corresponding bit rates.

To prevent buffering interference, we recommend you set a bit rate not exceeding 4 Mbps.

## Domain name management

Before creating an ApsaraVideo Live activity, you must add an ApsaraVideo Live domain name on the ApsaraVideo Live console.

### Prerequisite

Confirm if your domain name requires ICP record filing (if you have chosen the regions **China East 2 Shanghai** or **China North 2 Beijing**, you must complete the ICP record filing; if you have chosen the region Singapore, you do not need to complete the ICP record filing) to provide ApsaraLive Video services and organize ApsaraLive Video activities in China. If the domain name has not completed the record-filing process, you must first apply for [website record-filing](#).

## Procedure

Log on to the ApsaraVideo Live console.

The console checks the activation status of services on which the product is dependent. Follow the instructions on the page for operations.

Add a domain name.

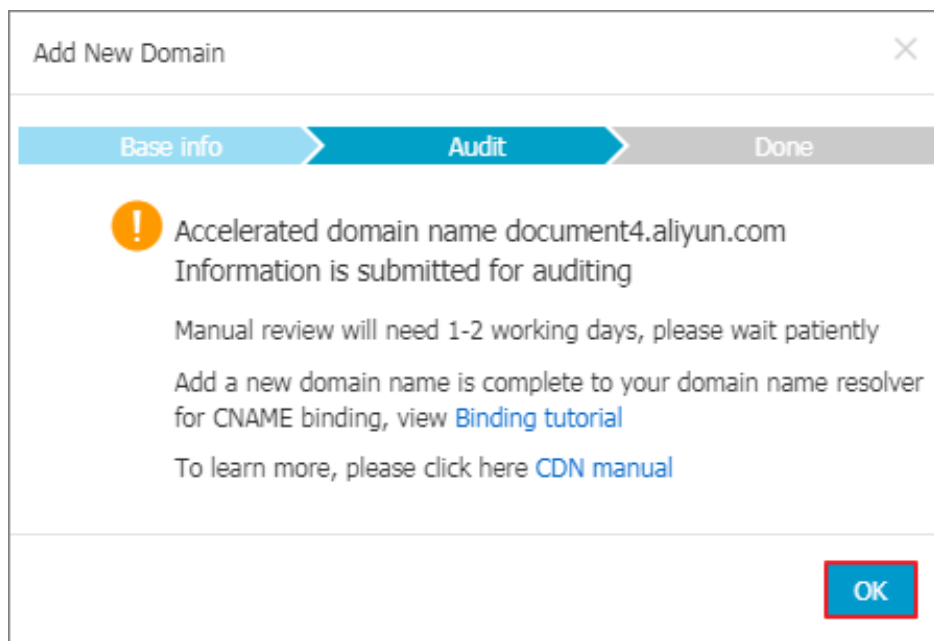
Select the desired region.

Click **Add New Domain**.



Enter the new domain name and click **Next step**.

A screenshot of the 'Add New Domain' dialog box. The dialog has a title bar with a close button (X). Inside, there are three steps: 'Base info' (highlighted in blue), 'Audit', and 'Done'. Under 'Base info', there are three fields: 'Region:' with the value 'China East 2 (Shanghai)', '\* Live domain name:' with the value 'document4.aliyun.com' (the input field is highlighted with a green border), and '\* Accelerating Area:' with a dropdown menu showing 'China'. At the bottom right, there are two buttons: 'Next step' (highlighted with a red border) and 'Cancel'.



After the domain name is configured successfully, the domain name automatically configures the CDN live acceleration function. You can use live acceleration function after the domain name completes CNAME binding.

**Note:** If your domain name is filed at www.net.cn, the following steps apply. However, if your domain name is not filed at www.net.cn, you must transfer your domain name to www.net.cn for management before carrying out CNAME binding operations according to these steps.

## Procedure

Log on to the ApsaraVideo Live console.

Select a region.

Select the domain name and get the CNAME corresponding to the domain name.

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Singapore

China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions
document1.aliyunlive.com	document1.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>

Log on to the Domain console.

Click **Domain Names**.

Select the domain name and click **Resolve**.

Click **Configure**.

Alibaba Cloud DNS		Basic DNS		Go to My Domain Name List >>	
Basic DNS		Add Domain Name			
Advanced DNS					
		Domain Name		Actions	
		51ili.com		Configure	
				total 1 items	

Click **Add Record**.

<

DNS Settings 51ili.com

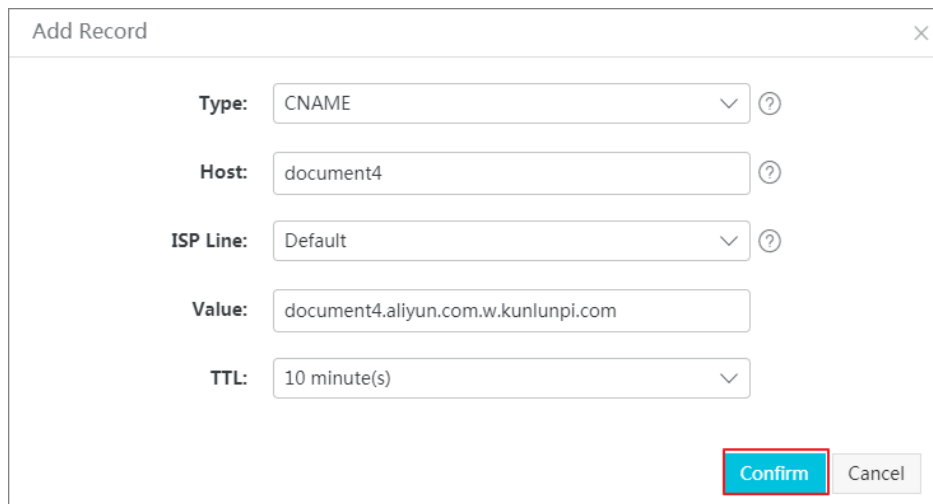
DNS Settings

DNS Server: dns11.hichina.com, dns12.hichina.com

Add Record

Type	Host	ISP Line	Value	MX Priority	TTL	Status	Actions
A	www	Default	120.55.21.95	--	30 minute(s)	--	<a>Edit</a> <a>Disable</a> <a>Delete</a>
CNAME	document3	Default	document3.aliyun.com.w.alikunlun.net	--	30 minute(s)	--	<a>Edit</a> <a>Disable</a> <a>Delete</a>

Enter the resolution parameters and click **Confirm**.



Select **CNAME** in **Type**.

Enter the secondary domain name of the streaming address in **Host**. For example, if the streaming address is document4.aliyun.com, then the secondary domain name is document4.

Enter the CNAME into **Value** of the domain name list.

- If it is a newly created domain name, the resolution will not involve DNS refreshing.
- If the CNAME is changed, different data will be cached on different DNSs. If this occurs, it may take up to 48 hours to complete the updates.

## Disable a domain name

Log on to the ApsaraVideo Live console.

Click **Domains** in the left-side navigation pane.

Select the region.

Select the domain name, and click **Actions** > **Disable** on the right side.

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China North 2 (Beijing)

China East 2 (Shanghai)

1


Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Detail	Disable	Delete
document1.aliyunlive.com	document1.aliyunlive.com.walikunlun.net	2017-08-01 14:02:40	Normal	Detail	Disable	Delete
docaliyun.com	docaliyun.com.walikunlun.net	2017-08-01 19:12:12	Normal	Detail	Disable	Delete
abc.aliyun.com	abc.aliyun.com.walikunlun.net	2017-08-01 19:59:22	Normal	Detail	Disable	Delete
livea.aliyun.com	livea.aliyun.com.walikunlun.net	2017-08-21 10:17:44	Normal	Detail	Disable	Delete
document2.aliyun.com	document2.aliyun.com.walikunlun.net	2017-08-21 10:21:34	Normal	Detail	Disable	Delete
document1.aliyun.com	document1.aliyun.com.walikunlun.net	2017-08-21 10:44:20	Normal	Detail	Disable	Delete
document2.aliyun.com	document2.aliyun.com.walikunlun.net	2017-08-24 14:54:23	Normal	Detail	Disable	Delete
document3.aliyun.com	document3.aliyun.com.walikunlun.net	2017-08-28 14:47:23	Normal	Detail	Disable	Delete
document4.aliyun.com	document4.aliyun.com.walikunlun.net	2017-09-14 09:54:46	Normal	Detail	Disable	Delete

Click **OK**.

Shutdown domain

 Are you sure you want to shutdown this domain?

OK Cancel

The **Status** of the current domain name changes to **Disabled**.

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Domains

Singapore

China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions
document.aliyunlive.com	document.aliyunlive.com.walikunlun.net	2017-08-01 14:02:40	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
docaliyun.com	docaliyun.com.walikunlun.net	2017-08-01 19:12:12	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
abc.aliyun.com	abc.aliyun.com.walikunlun.net	2017-08-01 19:59:22	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
livea.aliyun.com	livea.aliyun.com.walikunlun.net	2017-08-21 10:17:44	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
document.aliyun.com	document.aliyun.com.walikunlun.net	2017-08-21 10:21:34	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
document1.aliyun.com	document1.aliyun.com.walikunlun.net	2017-08-21 10:44:20	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
document2.aliyun.com	document2.aliyun.com.walikunlun.net	2017-08-24 14:54:23	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
document3.aliyun.com	document3.aliyun.com.walikunlun.net	2017-08-28 14:47:23	Normal	<a href="#">Detail</a>   <a href="#">Disable</a>   <a href="#">Delete</a>
document4.aliyun.com	document4.aliyun.com.walikunlun.com	2017-09-14 09:54:46	Disabled	<a href="#">Detail</a>   <a href="#">Enable</a>   <a href="#">Delete</a>

## Enable a domain name

Log on to the ApsaraVideo Live console.

Click **Domains** in the left-side navigation pane.

Select the region.

Select the domain name, and click **Actions** > **Enable** on the right side.



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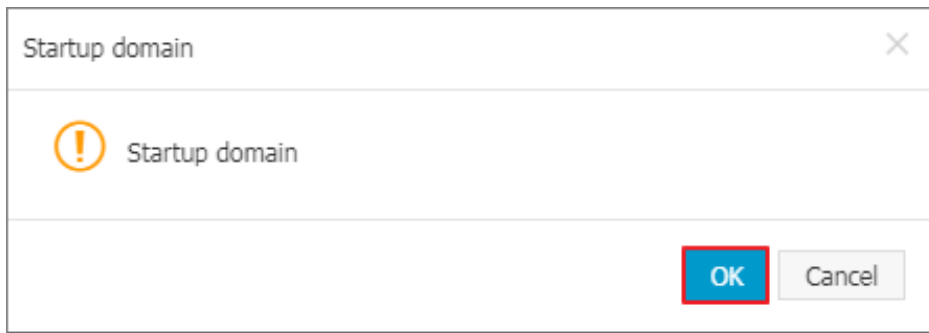
China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions
document.aliyunlive.com	document.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document.aliyun.com	document.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document4.aliyun.com	document4.aliyun.com.w.alikunlun.net	2017-09-14 09:54:46	Disabled	<a href="#">Detail</a> <a href="#">Enable</a> <a href="#">Delete</a>

Click **OK**.



The **Status** of the current domain name changes to **Normal**.

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China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions		
document.aliyunlive.com	document.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	Detail	Disable	Delete
doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	Detail	Disable	Delete
abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	Detail	Disable	Delete
livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	Detail	Disable	Delete
document.aliyun.com	document.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	Detail	Disable	Delete
document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	Detail	Disable	Delete
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	Detail	Disable	Delete
document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	Detail	Disable	Delete
document4.aliyun.com	document4.aliyun.com.w.alikunlun.com	2017-09-14 09:54:46	Normal	Detail	Disable	Delete

A domain name can only be deleted if its status is **Disabled**.

## Procedure

Log on to the ApsaraVideo Live console.

Click **Domains** in the left-side navigation pane.

Select the region.

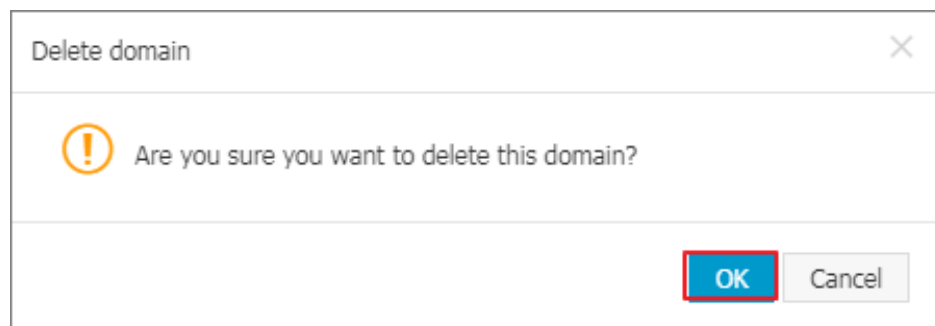
Make sure the domain to be deleted has been disabled, and then click **Delete**.

Live Video Console | Current Billing Type: Bandwidth

Domains | Singapore | China North 2 (Beijing) | **China East 2 (Shanghai)** | Refresh | Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions
document.aliyunlive.com	document.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	Detail   Disable   Delete
doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	Detail   Disable   Delete
abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	Detail   Disable   Delete
livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	Detail   Disable   Delete
document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	Detail   Disable   Delete
document11.aliyun.com	document11.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	Detail   Disable   Delete
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	Detail   Disable   Delete
document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	Detail   Disable   Delete
<b>document4.aliyun.com</b>	document4.aliyun.com.w.alikunlun.net	2017-09-14 09:54:46	Disabled	Detail   <b>Enable</b>   <b>Delete</b>

Click **OK**.



## Streaming management

A complete live video process includes collection, processing, encoding, packaging, streaming, transmission, transcoding, distribution, decoding, and playing steps. Streaming refers to the process of transmitting live content to the server using streaming tools and other content capturing software.

### Procedure

Add a domain name.

Log on to the ApsaraVideo Live console.

Select a region.

Note: You can select Singapore, China East 2 (Shanghai) or China North 2 (Beijing) on the Live Video console. If you select China East 2 (Shanghai) or

China North 2 (Beijing), the stream will be pushed to China East 2 (Shanghai) or China North 2 (Beijing) and undergo domestic video acceleration. If you select Singapore, the stream will be pushed to Singapore and undergo foreign video acceleration.

Click **Add New Domain**.

Current Billing Type: Bandwidth

Domains Singapore China North 2 (Beijing) China East 2 (Shanghai) Refresh Add New Domain

Enter the domain name information and click **Next Step**.

Add New Domain

Base info

Audit

Done

Region: China East 2 (Shanghai)

\* Live domain name: document4.aliyun.com

\* Accelerating Area: China

Next step
Cancel

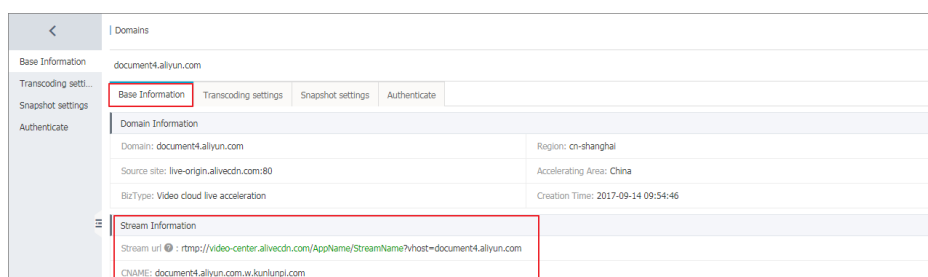
Get the streaming address.

Select a region.

Select the domain name and click **Detail** on the right side.

Live Video Console		Current Billing Type: Bandwidth				
Domains	Domains	<span>Singapore</span>	<span>China North 2 (Beijing)</span>	<span>China East 2 (Shanghai)</span>	<span>Refresh</span>	<span>Add New Domain</span>
Streams						
Snapshots						
Resource Monitor	Domain Name	CNAME	Creation Time	Status	Actions	
Traffic & Bandwidth	document.aliyunlive.com	document.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	Detail	Disable   Delete
Overview	doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	Detail	Disable   Delete
User Access Data	abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	Detail	Disable   Delete
Hot point	livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	Detail	Disable   Delete
Secure Monitor	document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	Detail	Disable   Delete
	document11.aliyun.com	document11.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	Detail	Disable   Delete
	document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	Detail	Disable   Delete
	document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	Detail	Disable   Delete
	document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable   Delete

Click the **Base Information** tab and then view information under **Stream Information**.



Streaming operations.

Copy the streaming address to the streaming tool for the push operation. You can see the following OBS Operation Guidelines for Streaming steps. Common streaming test tools are OBS official download, XSplit official download and FMLE official download.

We strongly recommend that you perform encryption and authentication on the streaming address to reduce risks such as live video bootlegging or illegal broadcasting without copyright consent. For detailed operation procedures, see [Live video authentication](#).

## AppName and StreamName

### Live broadcasting address structure

A live video service address consists of three levels of live video management units, namely the domain name (Domain), an application (AppName) and a live stream (StreamName). You can create multiple apps (AppName) under each domain name (Domain), and multiple live streams (StreamName) under each app.

AppName and StreamName can be edited and customized. Different values generate different streaming and playback addresses.

For example, if an app is named live you can create multiple live streams under live. The streaming addresses are then as follows:

```
rtmp://video-center.alivecdn.com/{live}/{3}?vhost={live video domain name}
rtmp://video-center.alivecdn.com/{live}/{1}?vhost={live video domain name}
rtmp://video-center.alivecdn.com/{live}/{2}?vhost={live video domain name}
```

You can also create multiple live streams for the app.

```
rtmp://video-center.alivecdn.com/{live1}/{Stream}?vhost={live video domain name}
rtmp://video-center.alivecdn.com/{live2}/{Stream}?vhost={live video domain name}
```

```
rtmp://video-center.alivecdn.com/{live3}/{Stream}?vhost={live video domain name}
```

URL authentication function aims helps protect a user' s website content from illegal or malicious activity. It is a safe and reliable anti-theft mechanism that protects site resources by coordinating Alibaba Cloud CDN acceleration node with customer resources site. The customer site provides customer with an encrypted URL (including authentication information), which the user then uses to make a request to the acceleration node. The acceleration node verifies the authentication information in the encrypted URL to determine the validity of the request (that is, whether to respond normally to a valid response or refuse an invalid response), thus effectively protecting customer site resources.

## Authentication URL composition

### Components

live streaming address/ playaddress + verification string, the verification string is caculated according to md5 algorithm by using authentication key + expire time. This address is applicable to PC end, mobile end, third-party streaming and play tools.

The **Auth KEY** field can be set by the user,

If the **Expire time** in which user visits customer source server exceeds the self-defined time ( **timestamp** field designation), the authentication will be invalid. For example, if the expire time is 1800s, and the user sets the visit time as 2020-08-15 15:00:00, the link will expire at 2020-08-15 15:30:00.

## URL authentication concept

### Encrypted URL component

```
http://DomainName/Filename?auth_key=timestamp-rand-uid-md5hash
```

### Authentication field description

Field	Description
timestamp	expire time, positive integer, fixed length 10, seconds measured from 1970-01-01. Used to control expire time, integer of 10 digit, expire time 1800s.
rand	random number, usually set to 0

uid	not used yet ( set to 0)
md5hash	verification string caculated according to md5 algorithm , lowercase letters and digits are supported, fixed length 32

When the server receives the request, it first determines whether the timestamp in the request is smaller than the current time. If it is smaller, then the expire time is thought to be invalid and it will return an HTTP 403 error. If the timestamp is bigger than the current time, then a same string will be structured (refer to the following composition mode of sstring). The server then calculates the HashValue according to MD5 algorithm, and compares this value with md5hash in the request. If the values are the same, then the authentication is successful; otherwise, it will return an HTTP 403 error.

**HashValue** is calculated with the following strings,

```
sstring = "URI-Timestamp-rand-uid-PrivateKey" ( URI is the address corresponding to the user's request object,
not including parameters , for example : /Filename )
HashValue = md5sum(sstring)
```

## Examples

Pass **req\_auth** request object

```
http:// cdn.example.com/video/standard/1K.html
```

Set the key to: aliyuncdnexp1234 (set by the user)

The expire time of authentication is 2015-10-10 00:00:00, the seconds calculated is: 1444435200.

The server structures a signature string used to calculate Hashvalue

```
/video/standard/1K.html-1444435200-0-0-aliyuncdnexp1234
```

The server calculates HashValue according to the signature string

```
HashValue = md5sum("/video/standard/1K.html-1444435200-0-0-aliyuncdnexp1234") =
80cd3862d699b7118eed99103f2a3a4f
```

The URL, when making a request, is

```
http:// cdn.example.com/video/standard/1K.html?auth_key=1444435200-0-0-
```

```
80cd3862d699b7118eed99103f2a3a4f
```

The calculated HashValue is consistent with md5hash = 80cd3862d699b7118eed99103f2a3a4f in the user's request, and the authentication succeeds.

**Note:** We recommend that the streaming address performs encryption and authentication operations for enhanced security.

## Procedure

Log on to the ApsaraVideo Live console.

Select a region.

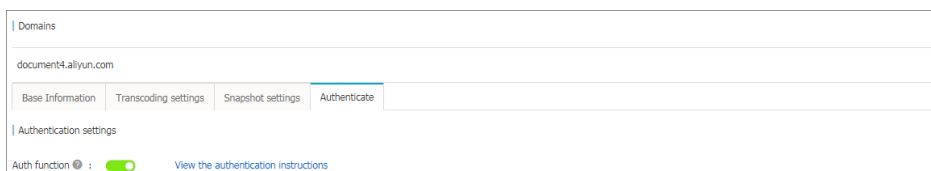
Select the domain name and click **Detail** at the right side.

Click **Authenticate**.



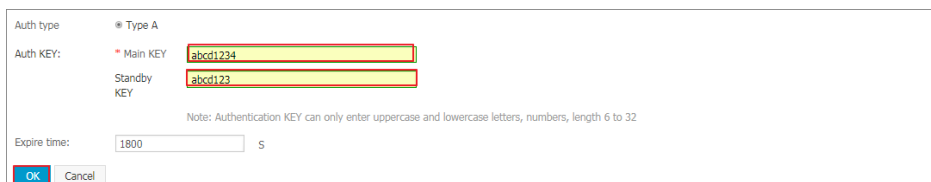
The screenshot shows the 'Domains' section of the ApsaraVideo Live console. The domain 'document4.aliyun.com' is selected. The 'Authenticate' tab is highlighted with a red box. Below the tabs, the 'Auth function' toggle is shown in the 'off' position, also highlighted with a red box. A link 'View the authentication instructions' is visible next to the toggle.

Enable Auth function.



The screenshot shows the 'Domains' section of the ApsaraVideo Live console. The domain 'document4.aliyun.com' is selected. The 'Authenticate' tab is highlighted. Below the tabs, the 'Auth function' toggle is shown in the 'on' position, highlighted with a green circle. A link 'View the authentication instructions' is visible next to the toggle.

Enter **Main KEY** and **Standby KEY**, and click **OK**.



The screenshot shows the 'Authenticate' dialog box. The 'Auth type' is set to 'Type A'. The 'Auth KEY' section has two input fields: 'Main KEY' with the value 'abcd1234' and 'Standby KEY' with the value 'abcd123'. A note below the fields states: 'Note: Authentication KEY can only enter uppercase and lowercase letters, numbers, length 6 to 32'. The 'Expire time' is set to '1800' seconds. The 'OK' button is highlighted with a red box.

**Note :**

- The main KEY is a key that calculates the encrypted string. It is a mandatory

item.

- If the **main KEY** is changed, all addresses using the **main KEY** will instantly become invalid. If the **standby KEY** is switched to become the **main KEY**, the streaming or playback address using the **main KEY** will not become invalid instantly, but will instead use the **standby KEY** as a mechanism for performing the switch.

Get the authentication URL.

Enter the stream URL.

You can get the stream URL from the **Base Information** tab.

**Note:** If you want to define AppName and StreamName, you need to replace the AppName and StreamName in the Steam Information with the AppName and StreamName you have defined before before generating the authenticated URL.

The screenshot displays the ApsaraVideo Live console interface. The top section shows the 'Base Information' tab for a domain named 'document4.aliyun.com'. Under the 'Stream Information' section, the 'Stream url' is highlighted with a red box and a red circle labeled '1'. The URL is: `rtmp://video-center.aliyuncdn.com/AppName/StreamName?host=document4.aliyun.com`. Below this, the 'Auth KEY' field is highlighted with a red box and a red circle labeled '2', containing the value 'abcd1234'. The 'Expire time' field is highlighted with a red box and a red circle labeled '3', containing the value '1800'. The 'Generate' button is highlighted with a red box and a red circle labeled '4'. The bottom section shows the 'Authentication URL Calculator' with the same fields and a 'Generate' button.

Enter the main KEY and standby KEY required by authentication in **Auth KEY**.

Enter the **Expire time** of the authentication URL.

Authentication will be invalid if it exceeds the expire time.

Click **Generate**.

**Note:** The auth URL is configured at the domain name level. If the



authentication function under the domain name has taken effect, all the streaming addresses under the domain name must perform the authentication operation. At the same time, the play information corresponding to streaming information is also authenticated. We recommend you use the encrypted address for playing.

## Function overview

Stream notification URL, or callback URL, is mainly used to call back stream-status real-time information and promptly notify users of the video streaming results.

You can add a callback URL of your background server on the console to Alibaba Cloud, so that when the stream status changes, Alibaba Cloud can send a GET request to your server using the HTTP interface and send real-time feedback on whether the video streaming is successful or failed.

## Notes

Principle: Real-time stream status feedback is implemented through GET requests sent to the user server using the HTTP interface, so that the user can learn whether video stream push is successful or finished. The user server returns 200 responses to the interface.

You do not have to identify the URL if normal access is allowed. The following requirements are imposed on URL responses: In case of access time-out, the URL can be retried. The current time-out duration is 5 seconds, the number of retries is 5, and the interval is 1 second.

The HTTPS address authorized by the certificate authority is supported.

## Configuration guide

Use the console to add a callback URL of your background server to Alibaba Cloud.

Log on to the ApsaraVideo Live console.

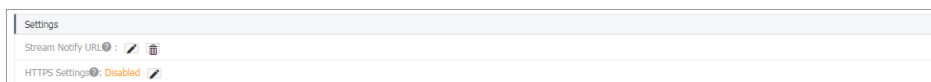
Click **Domains** in the left-side navigation pane.

Select the region.

Select the domain name and click **Detail** on the right side.

Click **Basic Information**.

Add a streaming callback address.



**Example:**

```
https://live.aliyunlive.com/pub? action=publish & app=xc.cdnpe.com & appname=test01 & id=test01 & ip=42.120.74.183 & node=cdnvideocenter010207116011.cm3
```

Parameters	Value description
time	Unix timestamp.
usrargs	Streaming parameters.
action	Publish indicates push streaming, and publish_done indicates completion of push streaming.
app	The default value is the custom streaming domain name. If no streaming domain name is bound, it is the playback domain name.
appname	Application name.
id	Stream name.
node	The name of the node or machine in the CDN that receives the stream.
IP	IP address of the client that pushes the stream.

## Function overview

Hyper Text Transfer Protocol over Secure Socket Layer (HTTPS) is a secure version of the normal HTTP channel. It encapsulates HTTP with the SSL/TLS protocol.

Alibaba Cloud ApsaraVideo Live provides HTTPS secure acceleration schemes. You only need to enable the secure acceleration mode and then upload the certificate/private key of the CDN domain. The ApsaraVideo Live console also supports viewing, disabling, enabling, and editing the certificates.

If the certificate is configured correctly and enabled, both HTTP access and HTTPS access are supported. **If the certificate does not match or is disabled, only HTTP access is supported.**

## Advantages of HTTPS acceleration

Key user data is encrypted during transmission to prevent the leakage of sensitive information, such as session IDs or cookies that could be maliciously used by attackers.

Data integrity verification is performed during transmission to prevent man in the middle (MITM) attacks or content being hijacked or tampered with by an unverified third party.

## NOTE

### Configuration restrictions

Feature	Description
"Disable" and "Enable" of HTTPS feature	Disable: No HTTPS requests are supported and no certificate/private key information is retained. You must re-upload the certificate/private key to enable the certificate again.
View certificate	It allows you to only view the certificate. Viewing private key information is not supported.
Modify and edit certificate	Modification and editing of the certificate are supported, but the effective period for performing these operations is 1 hour. Perform the operation with caution.

### Certificate restrictions

The certificate and private key of a CDN domain for which **HTTPS secure acceleration** is enabled must be uploaded. Both the certificate and private key must be in PEM format.

NOTE: Tengine used in ApsaraVideo Live is based on Nginx, which means certificates that can be read by Nginx are supported (the certificates must be in PEM format).

Only SSL/TLS handshakes containing SNI information is supported.

The certificate and private key that you upload must have a one-to-one correspondence with each other; otherwise, the verification fails.

The effective period of the updated certificate is 1 hour.

Private key with a password is not supported.

## Procedure

### Step 1: Buy a certificate.

To enable **HTTPS secure acceleration**, you must have a certificate that matches the CDN domain. Click **Buy Now** at the Alibaba Cloud Certificates Service to buy a certificate.

The screenshot shows the 'Alibaba Cloud Certificates Service' console. It is divided into two main sections: 'Basic Configuration' and 'Purchase Plan'.

**Basic Configuration:**

- Region:** Asia Pacific SE 2 (selected), EU Central 1, Middle East 1.
- Category:** OV SSL (selected). Description: OV SSL offers encryption to implement strict identity verification for applicants. It certifies trusted identity.
- Select Brand:** Entrust (selected). Description: Entrust Datacard provides the most stringent organization validation certificate.
- Type of Domain:** Wildcard Domain (selected), Single Domain, Multiple Domain. Description: Protection of one domain name with a wildcard (covering all the domain names at the same level as the "\*" wildcard). When you apply for a certificate for a domain name such as \*.example.com, the certificate issued will support a.example.com, a1.example.com, a2.example.com and so on, but does not support b.a.example.com, b1.a.example.com and so on.
- Domains:** A grid showing options: 1 (selected), 2, 3, 4, 5, 10, 20, 50, 100. Below the grid, it says '1 Domain(Sans/Subdomain/FQDN/Wildcard)'.

**Purchase Plan:**

- Quantity:** 1 (selected in a dropdown).
- Duration:** 1 Year (selected), 2 Years, 3 Years. Below it, it says 'Expired after one year'.

**Summary (Current Selected):**

- Region: Asia Pacific SE 2
- Category: OV SSL
- Select Brand: Entrust
- Type of Domain: Wildcard Domain
- Domains: 1
- Quantity: 1
- Duration: 1 year(s)
- Fee: \$ 1049.00
- Buy Now** button.

### Step 2: Configure the live video domain name.

Enable HTTPS secure acceleration.

Log on to the ApsaraVideo Live console.

Go to the **Domain Name List** page and select a region.

Select the domain name and click **Detail** on the right side.

Live Video Console

Domains

Streams

Snapshots

Resource Monitor

Traffic & Bandwidth

Overview

User Access Data

Hot point

Secure Monitor

Current Billing Type: Bandwidth

Domains

Singapore

China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions
document.aliyunlive.com	document.aliyunlive.com.w.alikunlun.net	2017-08-01 14:02:40	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
doc.aliyun.com	doc.aliyun.com.w.alikunlun.net	2017-08-01 19:12:12	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
abc.aliyun.com	abc.aliyun.com.w.alikunlun.net	2017-08-01 19:59:22	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
livea.aliyun.com	livea.aliyun.com.w.alikunlun.net	2017-08-21 10:17:44	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document.aliyun.com	document.aliyun.com.w.alikunlun.net	2017-08-21 10:21:34	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document1.aliyun.com	document1.aliyun.com.w.alikunlun.net	2017-08-21 10:44:20	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document2.aliyun.com	document2.aliyun.com.w.alikunlun.net	2017-08-24 14:54:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document3.aliyun.com	document3.aliyun.com.w.alikunlun.net	2017-08-28 14:47:23	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	<a href="#">Detail</a> <a href="#">Disable</a> <a href="#">Delete</a>

Click **Basic Information > Settings** to set HTTPS Settings.

document4.aliyun.com

Base Information

Transcoding settings

Snapshot settings

Authenticate

Domain Information

Domain: document4.aliyun.com

Region: cn-shanghai

Source site: live-origin.alivecdn.com:80

Accelerating Area: China

BizType: Video cloud live acceleration

Creation Time: 2017-09-14 09:54:46

Stream Information

Stream url: <rtmp://video-center.alivecdn.com/AppName/StreamName?host=document4.aliyun.com>

CNAME: document4.aliyun.com.w.kunlunpi.com



Play Information


RTMP format: <rtmp://document4.aliyun.com/AppName/StreamName>

FLV format: <http://document4.aliyun.com/AppName/StreamName.flv>


M3U8 format: <http://document4.aliyun.com/AppName/StreamName.m3u8>

Settings

Stream Notify URL:  

HTTPS Settings: **Disabled** 

Click **HTTPS secure acceleration** to go to the setting page, and then enable **Certificate Status**.

Certificate Management 

\* Certificate status:

☐

OK

Cancel

Select a certificate

Alibaba Cloud ApsaraVideo Live supports two types of certificates for deployment.

**Self-owned certificate:** You must set the certificate name and then upload the certificate content and private key. The certificate is then saved in **Alibaba Cloud Security certificate service**. You can view it in **My Certificates**.

Alibaba Cloud certificate: Certificates bought from the Alibaba Cloud Certificates Service are supported. You can select a certificate name to adapt to the CDN domain.

\* Certificate status:

☒

Choose a certificate:

Custom upload

[Purchase certificate](#)

Ali cloud "certificate service" to support the purchase and use of the certificate management and management, [Get to know immediately](#)

\* Certificate name

\* Certificate content

(Pem encoding) 

Sample reference

\* Private key:

(Pem encoding) 

Sample reference

Jump type:

☒ Default ☐ HTTPS -> HTTP

☐ HTTP -> HTTPS

By default, both HTTPS and HTTP requests are supported

OK

Cancel

NOTE: Only certificates in PEM format are supported. For more details, see [Certificate format description](#).

Set the redirection type.

Forced redirection is supported: The system forces redirection of users' original request methods by default.

For example, if **HTTP > HTTPS** redirection is enabled and a user initiates an HTTP request, the server returns a 302 redirect response and the original HTTP request is forcibly redirected to an HTTPS request.

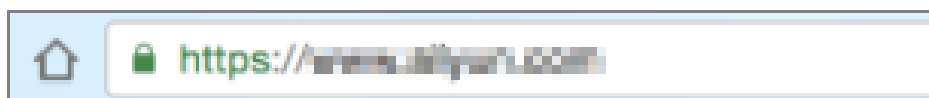
**Default:** HTTP and HTTPS requests are compatible.

**HTTP > HTTPS** redirect: Users' HTTP requests are forcibly redirected to HTTPS requests.

**HTTPS > HTTP** redirect: Users' HTTPS requests are forcibly redirected to HTTP requests.

### Step 3: Verify whether the certificate has taken effect.

You can access resources by HTTPS when the settings are completed and the certificate has taken effect. If a green HTTPS mark appears in your browser, it indicates that currently a private connection is established with the website and HTTPS secure acceleration is effective.



## Procedure

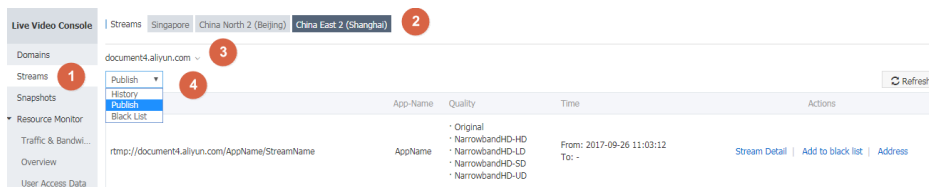
Log on to the ApsaraVideo Live console.

Click **Streams** in the left-side navigation pane.

Select the region.

Select the domain name.

You can then select **History**, **Publish** or **Black List** based on your needs to check the information of streams under different statuses.



In a live video environment, buffering interference is often the biggest impact on the live video streaming. Among Generally, poor bandwidth stability of the uplink transmission is the cause.

The ApsaraVideo Live console allows you to monitor the uplink traffic so you can easily view the uplink transmission status of the live stream to determine if there is a problem.

## View the monitoring data

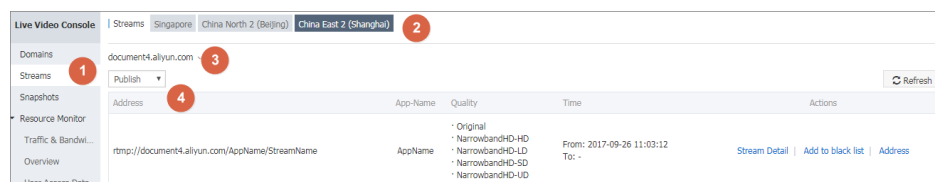
Log on to the ApsaraVideo Live console.

Click **Streams** in the left-side navigation pane.

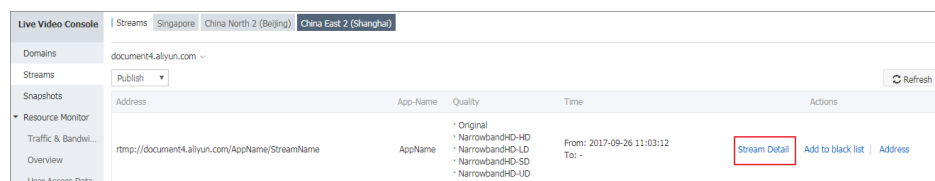
Select the region.

Select the domain name.

Select the stream status.



Select the streaming address and click **Stream Detail** on the right side.



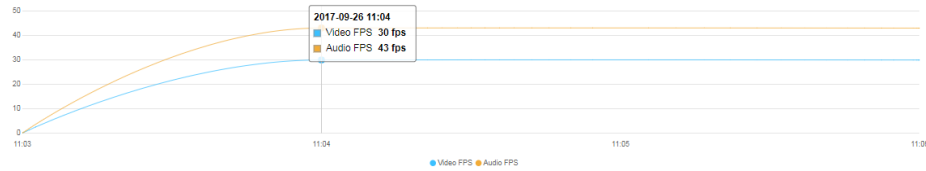
View the stream data such as streaming information, video frame rate, audio frame rate, and bit rate.

Streaming information

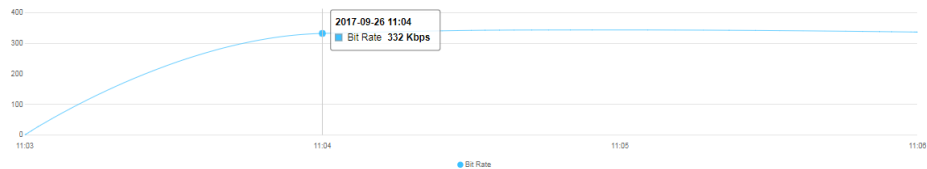


Stream Detail		
Publish info		
Stream URL: <code>rtmp://document4.aliyun.com/AppName/StreamName</code>		
Domain: <code>document4.aliyun.com</code>	AppName: <code>AppName</code>	StreamName: <code>StreamName</code>
Time duration: <code>00:06:48</code>	AVG Bit Rate: <code>337.79 Kbps</code>	AVG FPS: <code>29.98 fps [video]   43.06 fps [audio]</code>

### Frame rate



### Bit rate



Stream data is updated, on average, every minute. When the data status is displayed as smooth and the peak and valley values are comparatively stable, it indicates that the uplink transmission is comparatively stable. If sharp fluctuations occur, we recommend you check if the stability of the uplink transmission.

## Causes of choppy streaming

Several factors can cause video playback to buffer incorrectly or become choppy and unstable. The following recommendations are troubleshooting tips that may help resolve streaming issues:

Mobile phone configuration.

Streaming consumes CPU resources. Low-end mobile phones with poor hardware configuration may encounter poor quality video of degrees if the overall CPU usage exceeds 80% during the streaming process, which may affect the video collection and viewing experience on the user terminals.

Video collection parameter settings.

A video must have at least 15 frames per second (FPS) or higher to ensure smooth playback. An FPS set lower than this rate may result in unstable video quality. Note that if the frame rate is set at more than 30 FPS, the image content may not be viewed naturally by most viewers. Additionally, a higher frame rate also increases the bandwidth cost for video.

transmission.

Network bandwidth.

Common network factors include:

Network bandwidth size

Confirm the bandwidth size provided by the network operator and if the bandwidth is sufficient for this live video transmission.

Downlink bandwidth usage

Check whether any data downloading activity occupies the network bandwidth.

System resource usage

Check whether a large number of programs are running in the background, and terminate any unnecessary programs to save resources.

After the streaming address is added to the black list, the streaming operations under this domain name, and any operations thereafter, will be suspended. If you want to continue the streaming operations, you must restore the address from the black list.

## Procedure

Log on to the ApsaraVideo Live console.

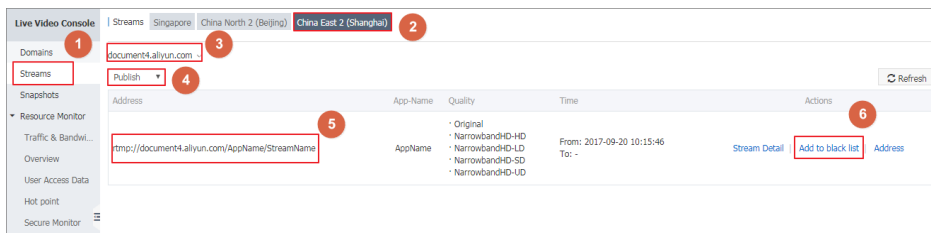
Click **Streams** in the left-side navigation pane.

Select the region.

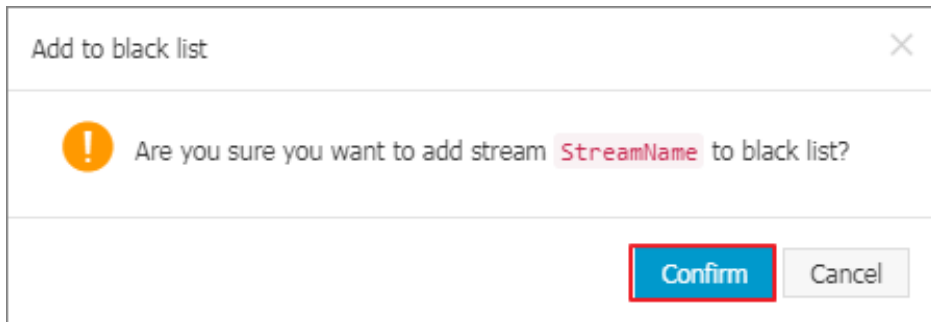
Select the domain name.

Select the status of the stream.

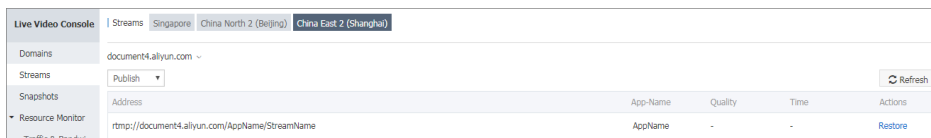
Select the address and click **Add to black list** on the right side.



Click **Confirm**.



The address is added to the black list successfully.



## Restore a streaming address

To restore an address from the black list, follow these steps.

### Procedure

Log on to the ApsaraVideo Live console.

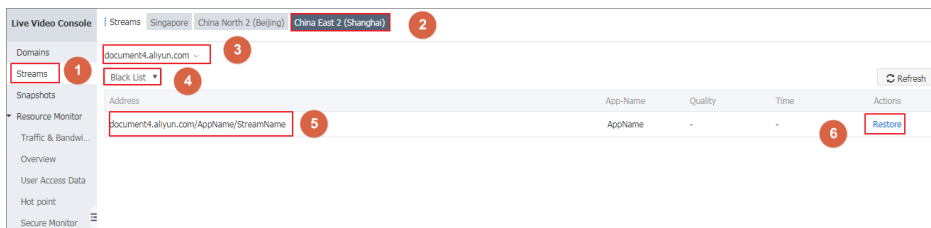
Click **Streams** in the left-side navigation pane.

Select the region.

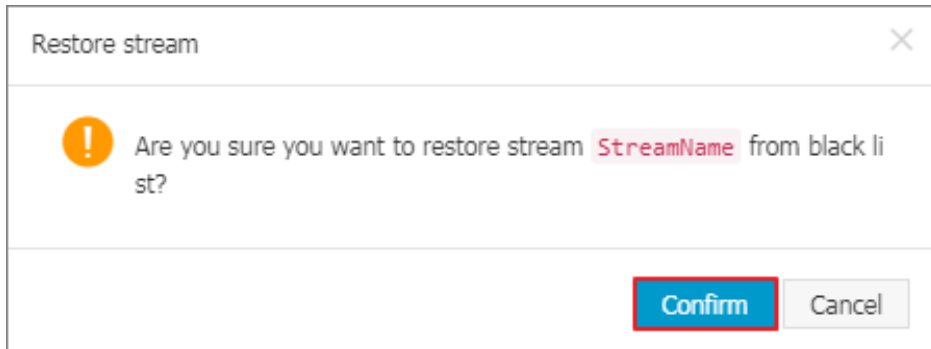
Select the domain name.

Select **Black List**.

Select the address and click **Restore** on the right side.



Click **Confirm**.



## Procedure

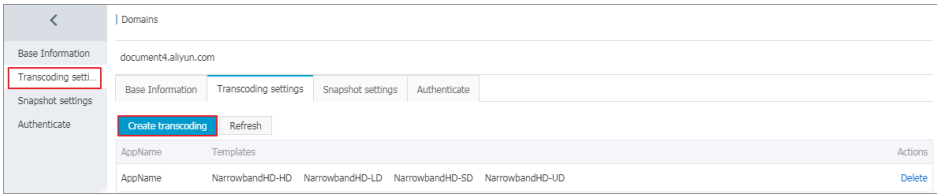
Log on to the ApsaraVideo Live console.

Go to the **Domain Name Management** page and select a region.

Select the domain name, and click **Detail**.

Live Video Console		Current Billing Type: Bandwidth			
Domains	Streams	Singapore	China North 2 (Beijing)	China East 2 (Shanghai)	Refresh Add New Domain
Snapshots	Streams	document4.aliyun.com			
Resource Monitor	Snapshots	Black List			
Traffic & Bandwidth	Resource Monitor	document4.aliyun.com/AppName/StreamName	AppName	-	-
Overview	Traffic & Bandwidth				Restore
User Access Data	Overview				
Hot point	User Access Data				
Secure Monitor	Hot point				
	Secure Monitor				

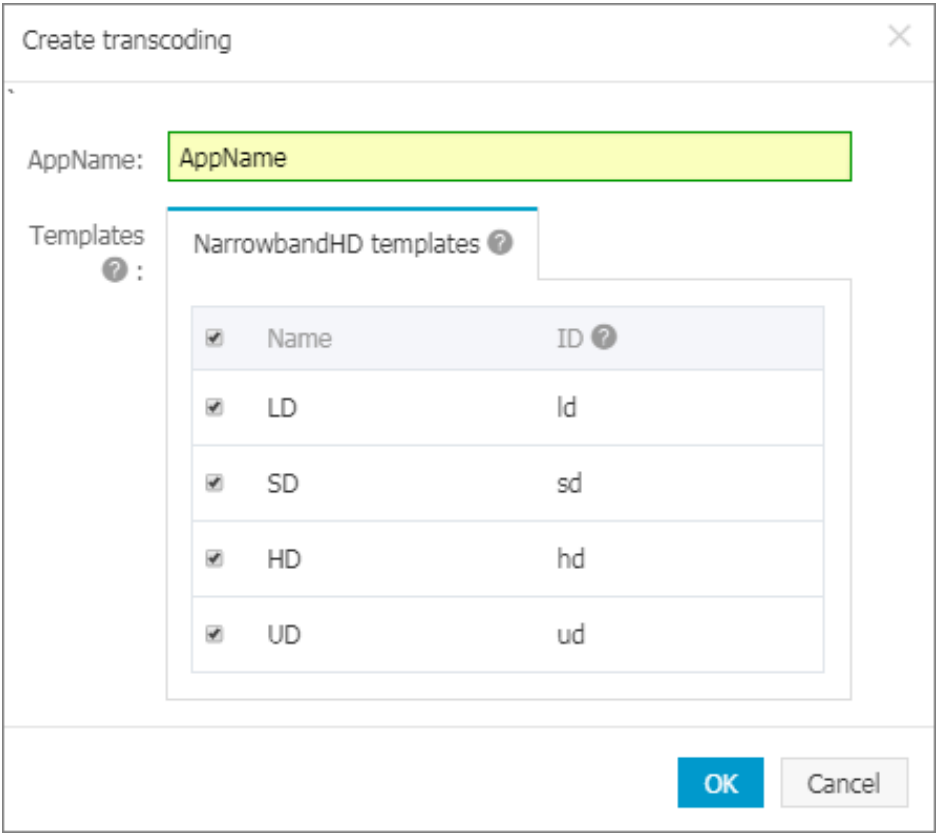
Click **Transcoding settings > Create transcoding**.



Set the transcoding parameters and click **OK**.

Enter the AppName.

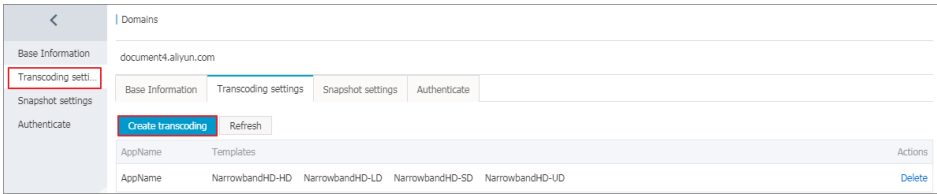
The transcoding template take effect only when the AppName entered matches that in the streaming address.



Select the transcoding template type.

**Note:** The high-quality (narrowband HD) transcoding template contains only four transcoding templates: LD, SD, HD, and UHD.

The transcoding template is created.



Video playback.

After the transcoding template is created, you can perform video streaming. Video is automatically transcoded according to the transcoding template. The transcoded video can be previewed on the ApsaraVideo Live console.

For more details about live video streaming, see Live video streaming.

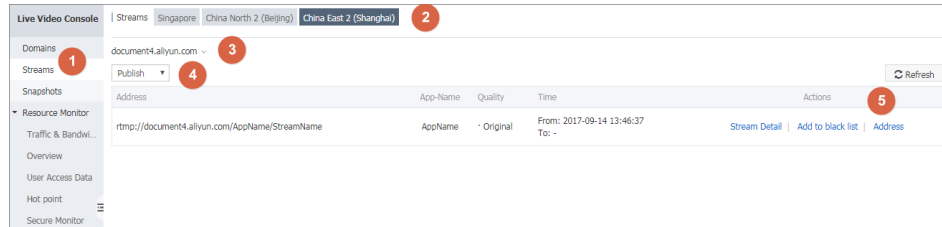
In the left-side navigation pane, click **Streams**.

Select a region.

Select the domain name.

Select the stream status.

Select the streaming address, and click **Address** at the right side.



The playback addresses of the transcoded video and original video are displayed in the address list.

By hovering the cursor over an address, the **Copy** link is displayed.

Address

Playing video will cause traffic costs.

NarrowbandHD-UD

RTMP Format:  
`rtmp://document4.aliyun.com/AppName/StreamName_ud?...`

FLV Format: `http://document4.aliyun.com/AppName/StreamName_ud....`

NarrowbandHD-HD

RTMP Format:  
`rtmp://document4.aliyun.com/AppName/StreamName_hd?...`

FLV Format: `http://document4.aliyun.com/AppName/StreamName_hd....`

NarrowbandHD-SD

RTMP Format:  
`rtmp://document4.aliyun.com/AppName/StreamName_sd?...`

FLV Format: `http://document4.aliyun.com/AppName/StreamName_sd....`

NarrowbandHD-LD

RTMP Format:  
`rtmp://document4.aliyun.com/AppName/StreamName_ld?...`

FLV Format: `http://document4.aliyun.com/AppName/StreamName_ld....`

Original

RTMP Format: `rtmp://document4.aliyun.com/AppName/StreamName?aut...`

FLV Format: `http://document4.aliyun.com/AppName/StreamName.flv...`

Click **Copy** and then click **Confirm**. Paste the address to a player to enable video playback.

Copy success

The link address has been copied to the clipboard, right click "Paste" or Ctrl + V to get.

Confirm

Cancel

# Screenshot management

Video snapshot service supports taking snapshots on the live video being played at a set interval and saving the snapshots as .jpg files to a specified location in OSS.

Under a live video CDN domain, the live snapshot settings are differentiated by the AppName of the live video streaming. That is, streams under the same AppName all perform screenshot operations following the settings of this AppName. The AppName can be set to " \* " , indicating that all the streams under the live video CDN domain follow the snapshot settings.

To conveniently view the snapshot content, set a bucket for storage first.

## Procedure

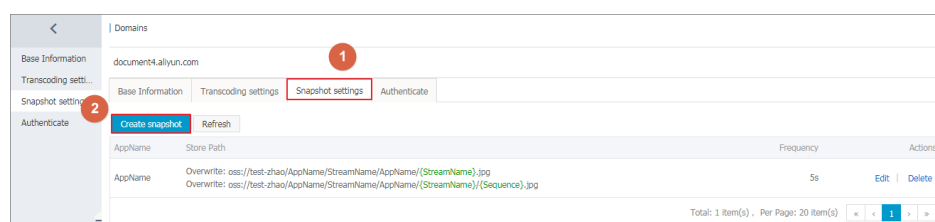
Log on to the ApsaraVideo Live console.

Select the region.

Select the domain name and click **Detail** on the right side.

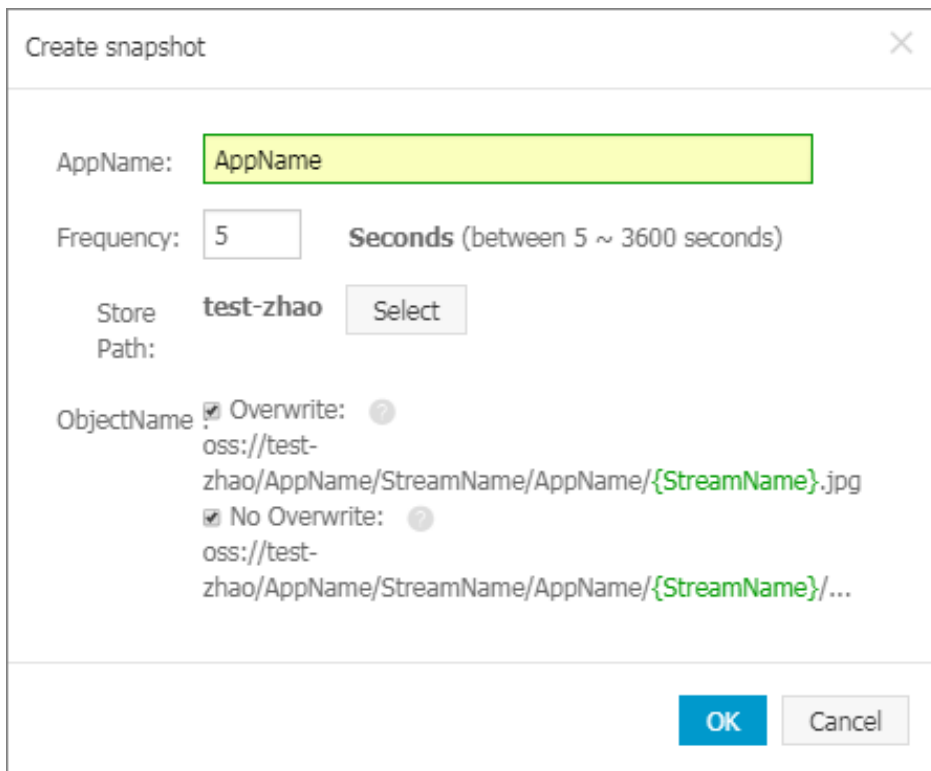
Click the **Snapshot settings**.

Click **Create snapshot**.



Set the snapshot parameters and click **OK**.





The image shows a 'Create snapshot' dialog box with the following fields and options:

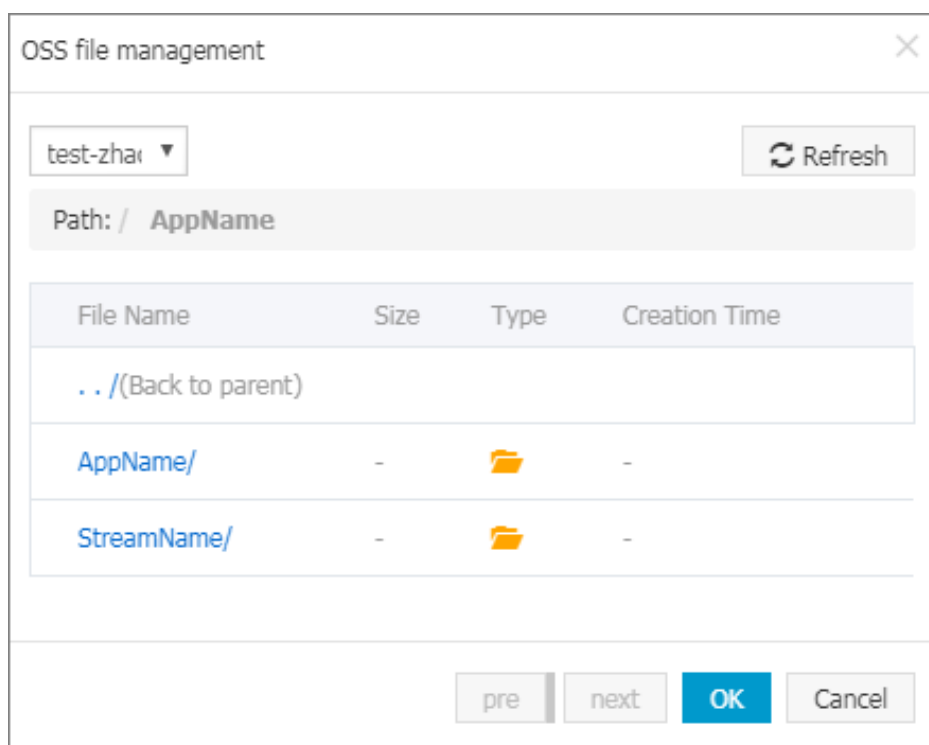
- AppName:** A text input field containing 'AppName'.
- Frequency:** A numeric input field containing '5', followed by the text 'Seconds (between 5 ~ 3600 seconds)'.
- Store Path:** A text input field containing 'test-zhao' and a 'Select' button.
- ObjectName:** A section with two checked options:
  - ☒ Overwrite: ?  
oss://test-zhao/AppName/StreamName/AppName/{StreamName}.jpg
  - ☒ No Overwrite: ?  
oss://test-zhao/AppName/StreamName/AppName/{StreamName}/...

At the bottom right are 'OK' and 'Cancel' buttons.

Enter the **AppName** for which the snapshot function must be enabled.

Enter the snapshot interval. The range can be between 5 to 3,600 seconds.

Select the bucket in which the snapshot files are stored, and click **OK**.



**Note:** The bucket must be in the same region as that of your current domain name. For example, if the current domain name is located in China East 2 (Shanghai), the bucket must also be located in China East 2 (Shanghai). If no bucket list is available in the panel, check that the OSS bucket and the domain name are in the same region.

Select an snapshot type, Overwrite or Do Not Overwrite. Multiple types can be selected.

**Overwrite:** The video screenshots are taken in sequence based on the set interval, and the new screenshot can overwrite the older one.

**Do Not Overwrite:** The video snapshots are taken in sequence based on the set interval, and the new snapshots are stored in OSS in the order of  $N+1$  ( $N \geq 0$ ).

All snapshot settings under the domain name are listed on the **Snapshot settings** tab. For example, the snapshots of all the live video streams with live8 as the app name under the domain name are captured and output according to this rule.

**Note:** Modified snapshot settings will take effect in the next live video streaming.

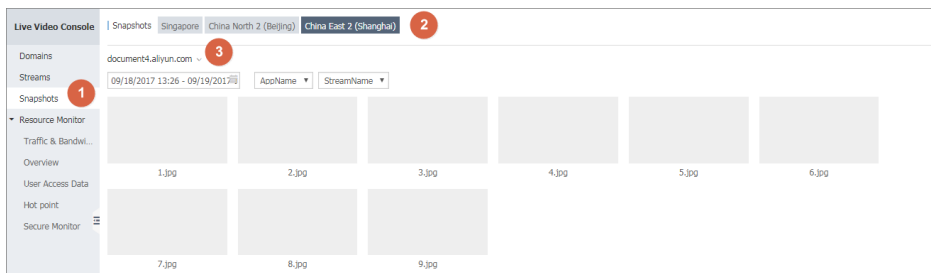
## Procedure

Log on to the ApsaraVideo Live console.

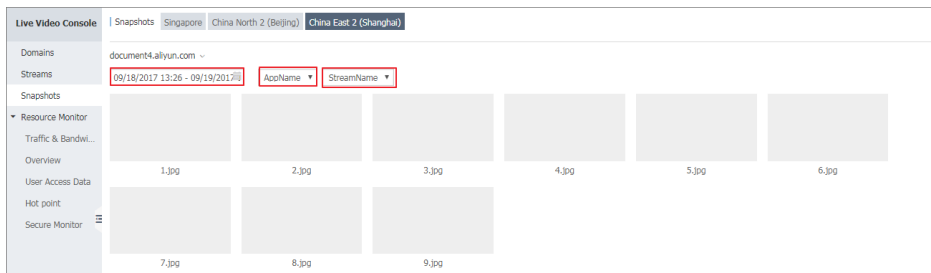
Click **Snapshots** in the left-side navigation pane.

Select the region.

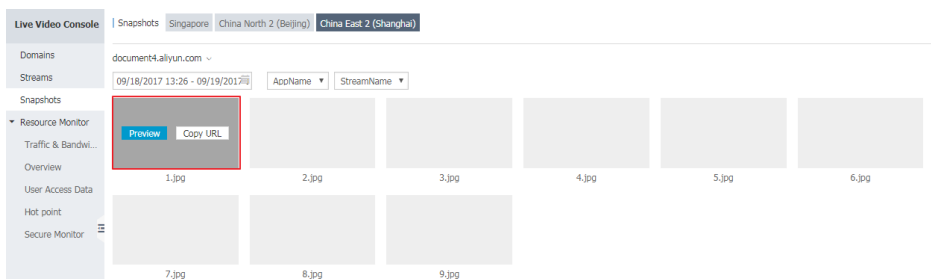
Select the domain name.



Select the time period, and select the AppName and StreamName. The snapshots list is shown based on your selection.



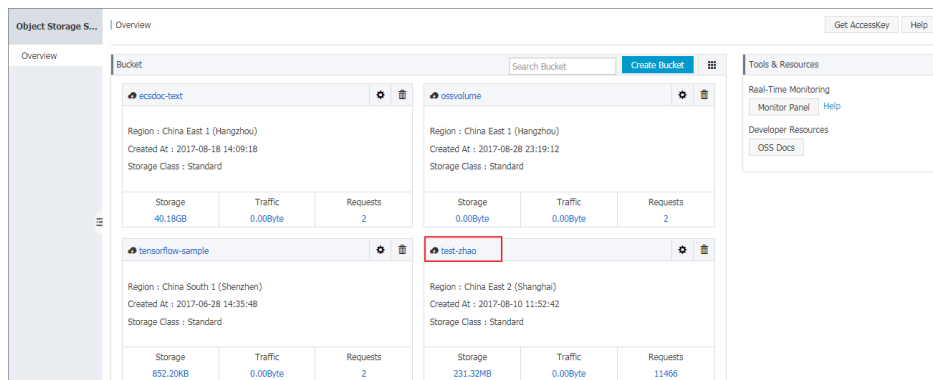
Move your cursor over a snapshot in the list. Buttons for enlarging the image and copying the URL are displayed. You can perform the operations as needed.



You cannot delete the snapshots directly on the ApsaraVideo Live console. Instead, you must perform the operation in the OSS console.

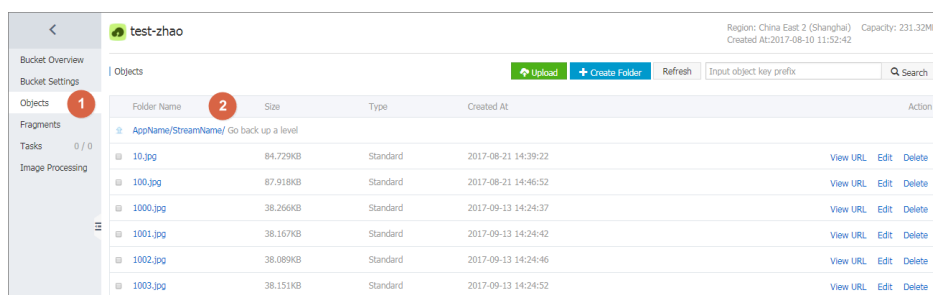
Log on to the OSS console.

Select the bucket in which the snapshots are stored on the **Overview** page and click its name.



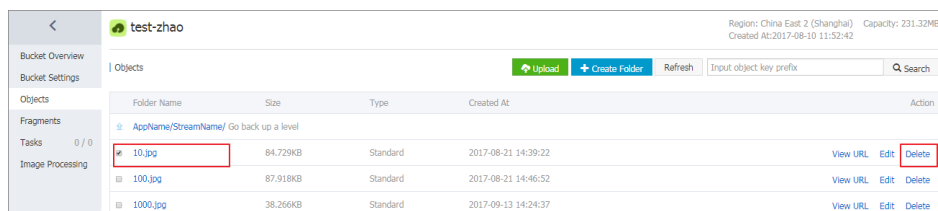
Click **Objects** in the left-side navigation pane.

Select the folder name.

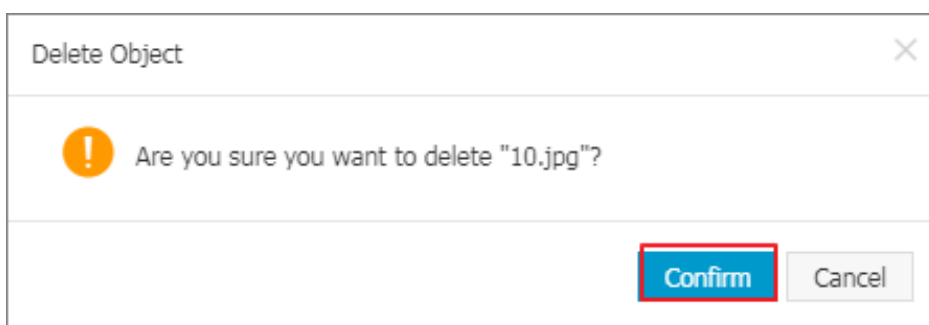


Select the snapshot to be deleted, and click **Actions > Delete**.

You can also select multiple snapshots and click **Delete Selected** to delete multiple snapshots at the same time.



Click **Confirm**.



Note: To verify whether the selected snapshot has been deleted, you must return to the **snapshots** page of the ApsaraVideo Live console.

## What is RAM

You can grant related permissions for live broadcast on the ApsaraVideo Live console to subaccounts by using Alibaba Cloud Resource Access Management (RAM).

A primary account can create multiple subaccounts. By authorizing the subaccounts' access certain functions, you can restrict their use of resources and functions for the purpose of unified management. Click [here](#) to learn more about Alibaba Cloud RAM.

Subaccount permissions mainly include authorization to use ApsaraVideo Live and OSS and CDN resource objects. We recommend you plan the resource instances of such services for a subaccount, create authorization policies based on the corresponding authorization templates, and then grant the permissions to the subaccount.

## RAM restrictions

RAM users cannot possess resources and they are not billed independently. These users are centrally controlled and billed under your Alibaba Cloud account. You can create separate passwords or keys for each RAM user, but these users do not have any operation permissions by default. RAM provides an access-policy-based authorization to help you grant fine-grained authority to RAM users.

You must grant the following permissions to your subaccounts to use ApsaraVideo Live console functions:

Live **(Mandatory)**, which grants permission to use ApsaraVideo Live and uses the built-in **AliyunLiveFullAccess** authorization policy;

OSS **(Mandatory)** which grants permission to use the screenshot storage service, that can be customized as needed;

CDN **(Mandatory)** which grants permission to play videos, that can be customized as needed.

# Authorized operations

## Authorization on ApsaraVideo Live

If a subaccount needs to use ApsaraVideo Live, you must grant the subaccount the permission to use ApsaraVideo Live. You can directly use the built-in AliyunLiveFullAccess authorization policy as follows:

Log on to the RAM console.

Click **Users**.

Click **Authorize** to grant the AliyunLiveFullAccess permission to the specified subaccount.

RAM

User Management

Create UserRefresh

Dashboard

Users

Groups

Policies

Roles

Settings

User Name

Search by User Name

Search

User Name/Display Name	Description	Created At			Actions
acs_ram_account_c9b0cd95e8cd4...	aliyun container service use this account to provide enhance...	2017-09-16 14:28:15	Manage	Authorize	Delete Join Group
acs_ram_account_cf69117922f94...	aliyun container service use this account to provide enhance...	2017-09-16 14:27:41	Manage	Authorize	Delete Join Group

Edit User-Level Authorization

Members added to this group have all the permissions of this group. A member cannot be added to the same group more than once.

Available Authorization Policy Names

Type

live

Selected Authorization Policy Name

Type

AliyunACSDDefaultAccess	Custom
aliyun container s...	
AliyunLiveFullAccess	System
Provides full acce...	

OK

Close

## Description of custom authorization policy creation

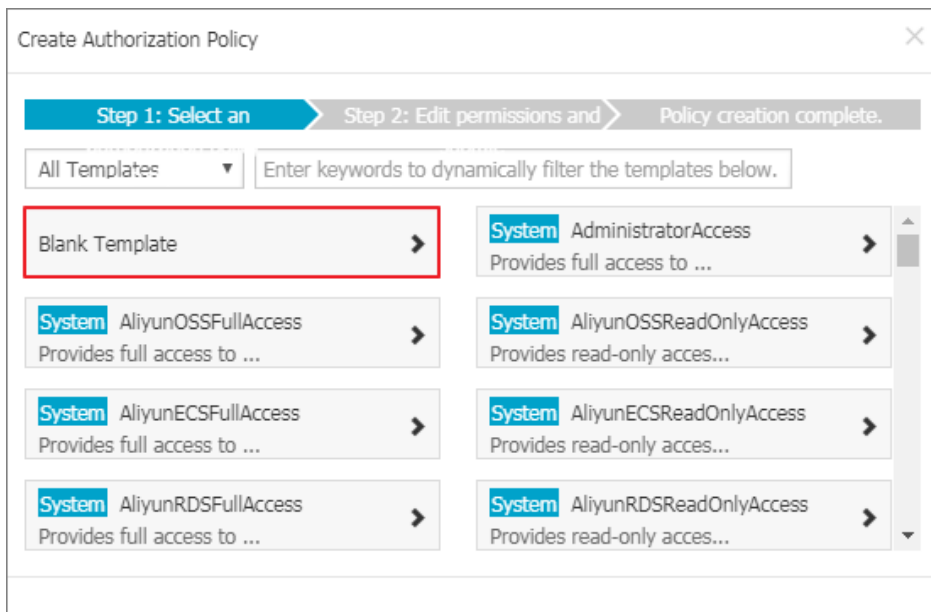
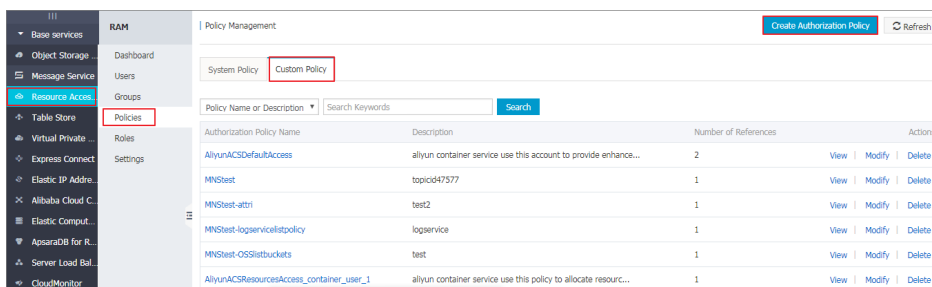
You can customize authorization policies and assign them to specified subaccounts as follows:

Log on to the RAM console.

Click **Policies**.

Select **Custom Policy**.

Click **Create Authorization Policy**. The following samples are custom authorization policies for the specified resource instance and have been assigned to the specified subaccount.



Create Authorization Policy

Step 1: Select an

Step 2: Edit permissions and

Policy creation complete.

\* Authorization Policy

Name :

user1-oss1-live

Names must be 1-128 characters long. They may only contain the letters A-Z, numbers 0-9, and hyphens.

Description :

Policy Content :

1 {

2 "Version": "1",

3 "Statement": [

4 {

5 "Effect": "Allow",

6 "Action": [

7 "oss1:\*"

8 ],

9 "Resource": [

10 "acs:oss1:\*:\*:\$Bucket",

11 "acs:oss1:\*:\*:\$Bucket/\*"

12 ]

Authorization Policy Format

Authorization Policy FAQ

Previous

Create Authorization Policy

Cancel

Create Authorization Policy

Step 1: Select an

Step 2: Edit permissions and

Policy creation complete.

✓

Policy created successfully.

You have created an authorization policy. To view details and manage policy versions, go to the policy page.

View Policy Details

Create Another Policy

Close

Policy Management

Create Authorization Policy

Refresh

System Policy

Custom Policy

Policy Name or Description

Search Keywords

Search

Authorization Policy Name	Description	Number of References	Actions
AliyunACSDDefaultAccess	aliyun container service use this account to provide enhance...	2	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
MNStest	topicid47577	1	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
MNStest-attri	test2	1	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
MNStest-logservicepolicy	logservice	1	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
MNStest-OSSlistbuckets	test	1	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
AliyunACSResourcesAccess_container_user_1	aliyun container service use this policy to allocate resourc...	1	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>
user1-oss1-live		0	<a href="#">View</a>   <a href="#">Modify</a>   <a href="#">Delete</a>

After the authorization policies are created for various service resource objects, you



can grant the permissions to corresponding subaccounts. See the permission granting instructions of MTS for more details.

The following are OSS and CDN authorization policies. You can grant corresponding permissions to subaccounts as needed.

### OSS authorization policy

Permission description:

All operation permissions on specified buckets;  
Permission to view the bucket list;

```
{
  "Version": "1",
  "Statement": [
    {
      "Action": [
        "oss:*"
      ],
      "Resource": [
        "acs:oss:*:*:$Bucket",
        "acs:oss:*:*:$Bucket/*"
      ],
      "Effect": "Allow"
    },
    {
      "Action": [
        "oss:ListBuckets"
      ],
      "Resource": "*",
      "Effect": "Allow"
    }
  ]
}
```

### CDN authorization policy

Permission description:

All permissions on specified CDN domains;  
Permission to query CDN domains;

```
{
  "Version": "1",
  "Statement": [
    {
      "Action": "cdn:*",
```

```

"Resource": [
  "acs:cdn:*:$Uid:domain/$DomainName"
],
"Effect": "Allow"
},
{
  "Action": "cdn:Describe*",
  "Resource": "*",
  "Effect": "Allow"
}
]
}

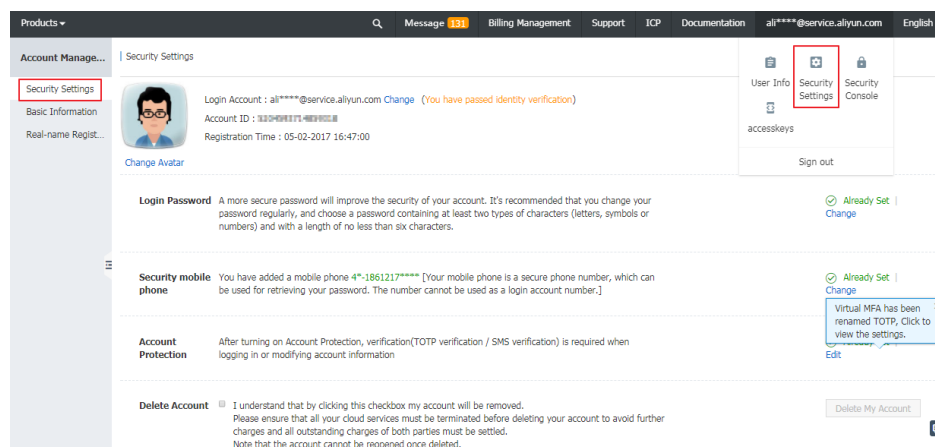
```

The following variables are used in the resource authorization policies of each service. Replace them with your actual resource instance name:

## Description of variables

### Uid

**\$Uid:** Cloud account ID. You can query it through **Alibaba Cloud console > Account Management > Security Settings**.



### Bucket

**\$Bucket:** OSS Bucket.

### CDN

**\$DomainName:** Name of the CDN domain.

# Resource monitoring

You can view the **traffic bandwidth**, **access overview**, **user access data**, **hot point** and **security monitor** information on the ApsaraVideo Live console, and select the domain name and time segment to be monitored for each metric. Available metrics that you can monitor are as follows:

Monitoring Metric	Monitoring index
Traffic bandwidth	<ul style="list-style-type: none"> <li>- <b>Network bandwidth</b>: The total traffic and peak bandwidth under the current domain name in the selected acceleration region and ISP within a certain time segment.</li> <li>- <b>Back-to-source bandwidth</b>: The back-to-source traffic monitored under the current domain name within a certain time segment.</li> <li>- <b>Daily traffic statistics</b>: Indexes for which statistics is performed daily, including the traffic, peak bandwidth, peak time point, peak back-to-source bandwidth, peak back-to-source bandwidth time point, and number of visits.</li> </ul>
Access overview	<ul style="list-style-type: none"> <li>- <b>Hit rate</b>: Traffic hit rate and request hit rate, among which, Traffic hit rate = Number of traffic that is hit/Total traffic; while Request hit rate = Number of requests that are hit/Total requests.</li> <li>- <b>Access QPS</b>: The number of accesses per second under the current domain name within a certain time segment.</li> <li>- <b>HTTP CODE</b>: The HTTP status code.</li> </ul>
User access data	<ul style="list-style-type: none"> <li>- <b>PV</b>: The number of times resource files under the current domain name are accessed within a certain time segment.</li> <li>- <b>UV</b>: The number of unique IP addresses that request resources under the current domain name within a certain time segment.</li> <li>- <b>User region distribution</b>: Distribution of users in terms of accessed sites, response time, and download speed under the current domain name within a certain time segment.</li> <li>- <b>Carrier proportions</b>: Shares of the carrier under the current domain name within a certain time segment.</li> </ul>
Hot point	<ul style="list-style-type: none"> <li>- <b>Popular URLs</b>: Popular URLs with a high number of access requests, and popular URLs with heavy traffic.</li> <li>- <b>Popular referers</b>: Popular referers with a high number of access requests, and popular referers with heavy traffic.</li> <li>- <b>File response proportions</b>: Response of files with a high number of access requests, and response of files with heavy traffic.</li> </ul>

**Security monitor**

- **CC monitoring:** Number of attacks under the current domain name within a certain time segment.

You can select **Traffic&Bandwidth**, **Overview**, **User Access Data**, **Hot point** and **Security Monitor** from the **Resource Monitoring** page.

## Procedure

Log on to the ApsaraVideo Live console.

Click **Resource Monitor** in the left-side navigation pane.

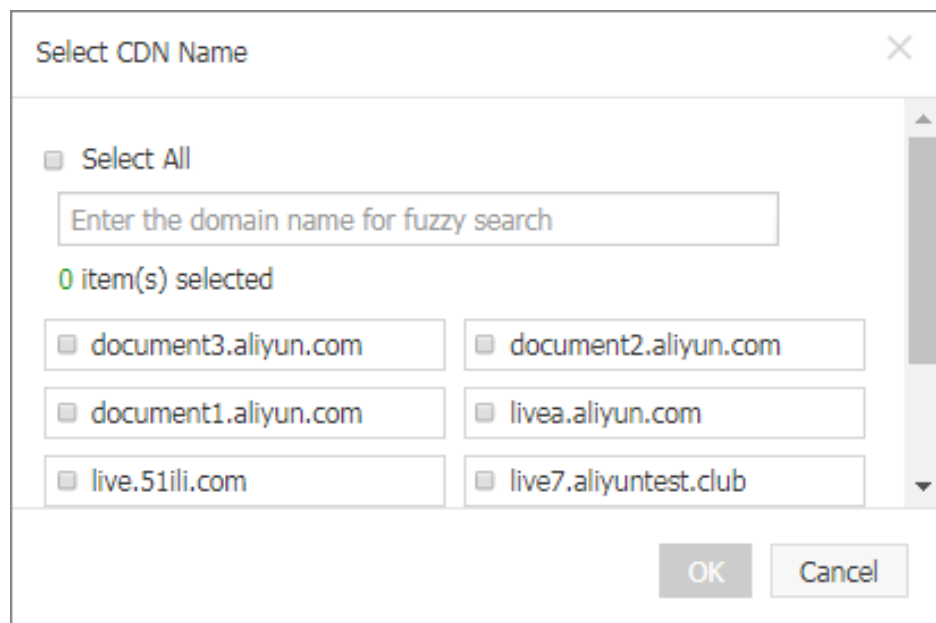
Click **Traffic&Bandwidth**.

Select **Monitored Domain Names**.

Click **Select CDN Name**.

Select the domain names.

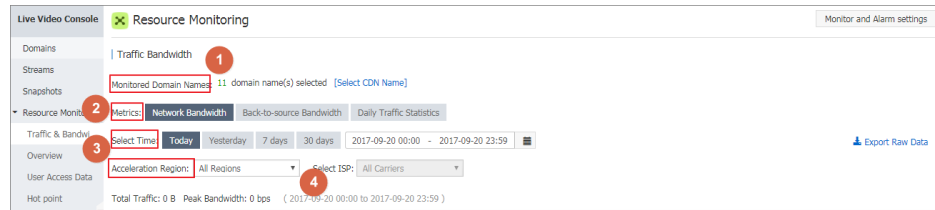
Click **OK**.



Select a monitoring metric.

Select the time period you want to monitor.

Click the acceleration region.



You can also click **Export Raw Data** to download the collected data to your local folder.

You can access **Monitor and Alarm settings** from **Traffic Bandwidth**, **Access Overview**, **Visitor Data**, **Hot Spot Analysis** or **Security Monitoring** pages.

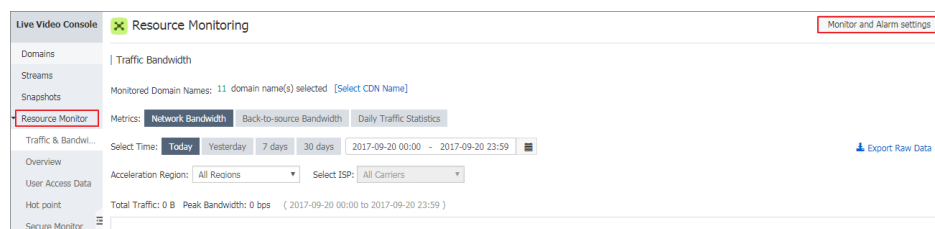
## Procedure

Log on to the ApsaraVideo Live console.

Click **Resource Monitoring** in the left-side navigation pane.

Click **Traffic&Bandwidth**.

Click **Monitor and Alarm settings** in the upper-right corner to go to the CloudMonitor console.



Click **Alarm Rules**.

Click **Create Alarm Rule** in the upper-right corner to go to **Create Alarm Rule** page.

For more details, see Alarm template best practices.

CloudMonitor

Overview

Dashboard

Application Groups

Host Monitoring

Site Monitoring

Cloud Service Mo...

Alarm Service

CDN

Users

Domain Name List

Alarm Rules

1

Create Alarm Rule

Refresh

All

Please select.

Rule Name	Status (All)	Enable	Metrics (All)	Dimension	Alarm Rules	Notify	Actions
You do not have any alarm rules. <a href="#">Click here</a> to add one.							

Create Alarm Rule

Back to

1

Related Resource

Products :

CDN

Resource Range :

All Resources

When selecting an application group, you can use an alarm template. [Click View alarm template best practices.](#)

2

Set Alarm Rule

Alarm Rule Name :

Rule Describe :

Peak Bandwidth

Smings

Average

>=

Thresho

Mb/s

+Add Alarm Rule

Mute for :

24h

Triggered when threshold is exceeded for :

1

Effective Period :

00:00

To: 23:59

1.00

0.50

0.00

-0.50

-1.00

13:30:00

19:30:00

00:03:20

06:36:40

12:38:00

Peak Bandwidth—Average Value—All Resources

The line chart indicates the average aggregate value trend of instances under the application group, making your reference to set the alarm rule threshold.

3

Notification Method

Notify :

Contact Group

All

Search

Default Contact Group

GPU

Quickly create a contact group

Selected Groups 0 count

All

Notification Methods :

Email+All

Email Remark :

Optional

Confirm

Cancel

45