

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 the live stream information is pushed to.

API

Function	Description
Query online users	Gets the number of online users of the RTMP live stream; supports query by domain name or stream.
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; supports query by domain name or stream.
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 the live stream information is pushed to.
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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 in the ApsaraVideo Live console.

Prerequisite

Confirm whether your domain name requires ICP record filing (if you select the regions **China East 2 Shanghai** or **China North 2 Beijing**, you must complete the ICP record filing; if you select the region **Singapore**, you do not need to complete the ICP record filing) if you want to use ApsaraLive Video service 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.

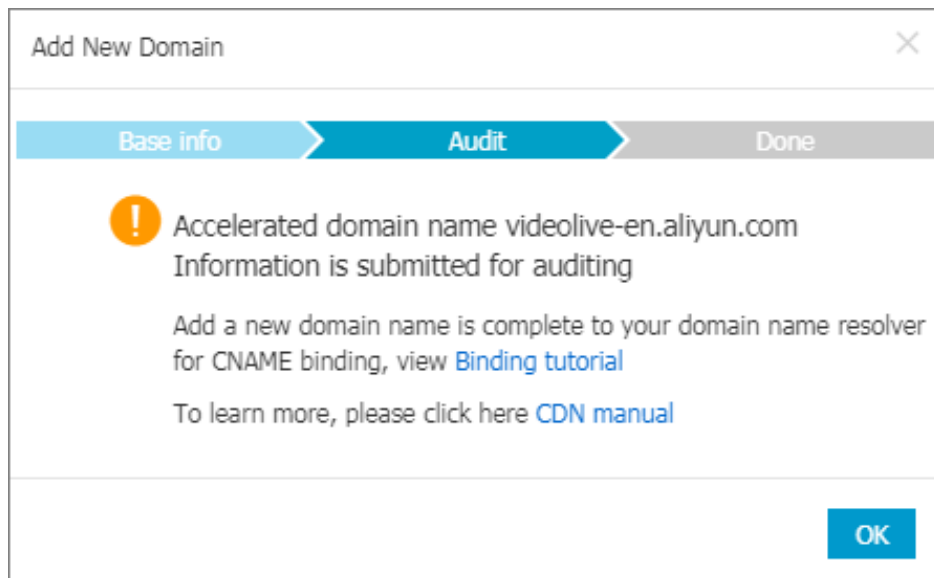
Select the desired region.

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). Below the title bar, there are three tabs: 'Base info' (selected), 'Audit', and 'Done'. Under the 'Base info' tab, there are three fields: 'Region:' with the value 'China East 2 (Shanghai)', '* Live domain name:' with the value 'videolive-en.aliyun.com' (the input field is highlighted with a green border), and '* Accelerating Area:' with a dropdown menu showing 'China'. At the bottom right of the dialog, there are two buttons: 'Next step' (highlighted in blue) 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 applied for at www.net.cn, following the steps below.
- If your domain name is not applied for at www.net.cn, you must transfer your domain name to www.net.cn for management and then bind CNAME according to these steps.

Procedure

Log on to the ApsaraVideo Live console.

Select the region.

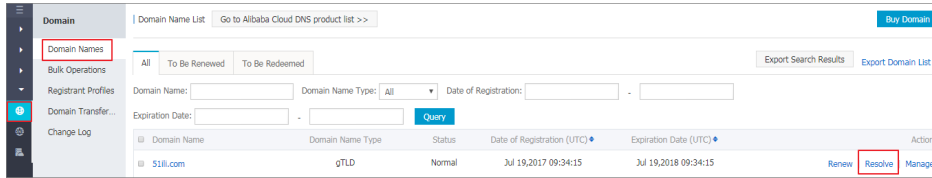
Select the domain name and get the CNAME corresponding to the domain name.

Current Billing Type: Bandwidth					
Domains			Refresh Add New Domain		
Singapore China North 2 (Beijing) China East 2 (Shanghai)					
Domain Name	CNAME	Creation Time	Status	Actions	
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable Delete
cc.aliyun.com	cc.aliyun.com.w.aliyun.net	2017-10-28 15:39:09	Normal	Detail	Disable Delete
videolive.aliyun.com	videolive.aliyun.com.w.aliyun.net	2017-11-09 11:20:40	Normal	Detail	Disable Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.aliyun.net	2017-11-13 17:52:07	Normal	Detail	Disable Delete

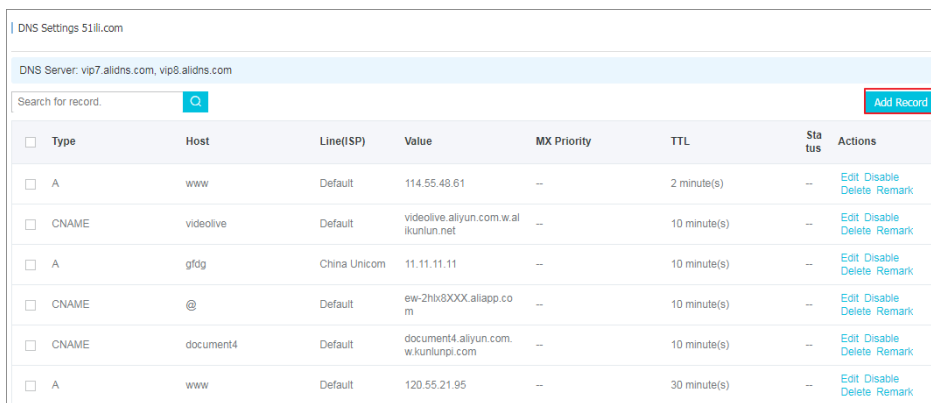
Log on to the Domain console.

Click **Domain Names**.

Click **Resolve**.



Click **Add Record**.



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

The 'Add Record' dialog box is shown with the following configuration:

- Type:** CNAME - Canonical name
- Host:** videolive-en.51ili.com
- ISP Line:** Default - Return to the default value when th...
- Value:** videolive-en.aliyun.com.w.alikunlun.net
- TTL:** 10 minute(s)

The **Confirm** button is highlighted in blue.

Select **CNAME-Canonical name** in **Type**.

Enter the secondary domain name of the streaming address in **Host**. For example, if

the streaming address is videolive-en.aliyun.com, then the secondary domain name is videolive-en.

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.
- Different data will be cached on different DNSs, and if the CNAME is changed, it may take up to 48 hours to complete the updates.

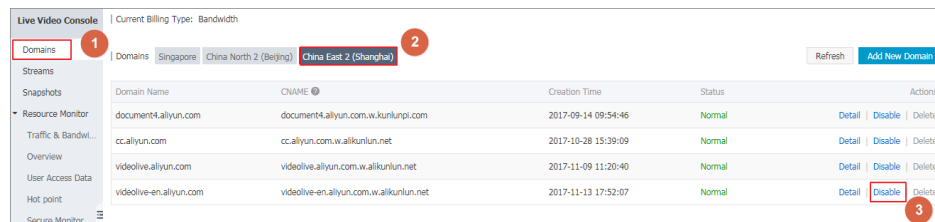
Disable a domain name

Log on to the ApsaraVideo Live console.

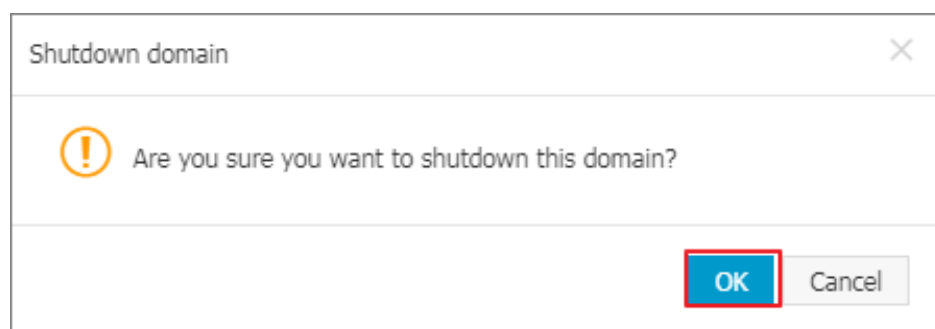
Click **Domains** in the left-side navigation pane.

Select the region.

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



Click **OK**.



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

Live Video Console

Current Billing Type: Bandwidth

Domains

Streams

Snapshots

Resource Monitor

Traffic & Bandwidth

Overview

User Access Data

Hot point

Secure Monitor

Domains

Singapore

China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions		
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable	Delete
cc.aliyun.com	cc.aliyun.com.w.aliyun.com	2017-10-28 15:39:09	Normal	Detail	Disable	Delete
videolive.aliyun.com	videolive.aliyun.com.w.aliyun.com	2017-11-09 11:20:40	Normal	Detail	Disable	Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.aliyun.com	2017-11-13 17:52:07	Disabled	Detail	Enable	Delete

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 **Enable** on the right side.

Live Video Console

Current Billing Type: Bandwidth

Domains

Streams

Snapshots

Resource Monitor

Traffic & Bandwidth

Overview

User Access Data

Hot point

Secure Monitor

Domains

Singapore

China North 2 (Beijing)

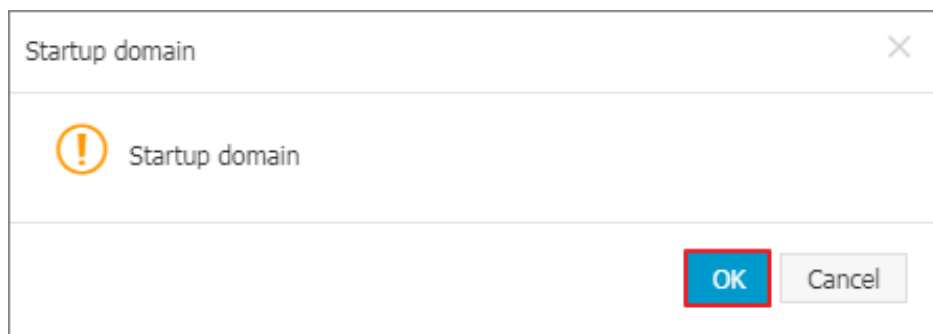
China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions	
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable Delete
cc.aliyun.com	cc.aliyun.com.w.aliyun.com	2017-10-28 15:39:09	Normal	Detail	Disable Delete
videolive.aliyun.com	videolive.aliyun.com.w.aliyun.com	2017-11-09 11:20:40	Normal	Detail	Disable Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.aliyun.com	2017-11-13 17:52:07	Disabled	Detail	Enable Delete

Click **OK**.



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

Live Video Console

Current Billing Type: Bandwidth

Domains

Streams

Snapshots

Resource Monitor

Traffic & Bandwidth

Overview

User Access Data

Hot point

Secure Monitor

Domains

Singapore

China North 2 (Beijing)

China East 2 (Shanghai)

Refresh

Add New Domain

Domain Name	CNAME	Creation Time	Status	Actions		
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable	Delete
cc.aliyun.com	cc.aliyun.com.w.aliyun.com	2017-10-28 15:39:09	Normal	Detail	Disable	Delete
videolive.aliyun.com	videolive.aliyun.com.w.aliyun.com	2017-11-09 11:20:40	Normal	Detail	Disable	Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.aliyun.com	2017-11-13 17:52:07	Normal	Detail	Disable	Delete

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

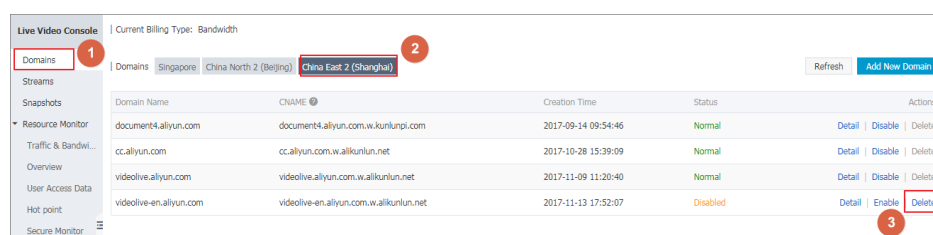
Procedure

Log on to the ApsaraVideo Live console.

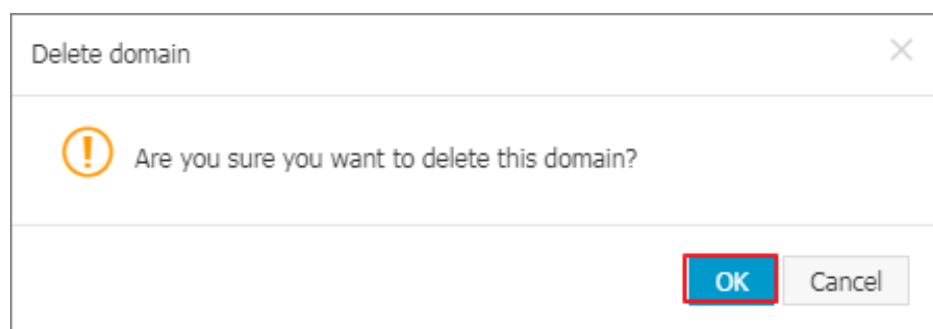
Click **Domains** in the left-side navigation pane.

Select the region.

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



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 the 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.

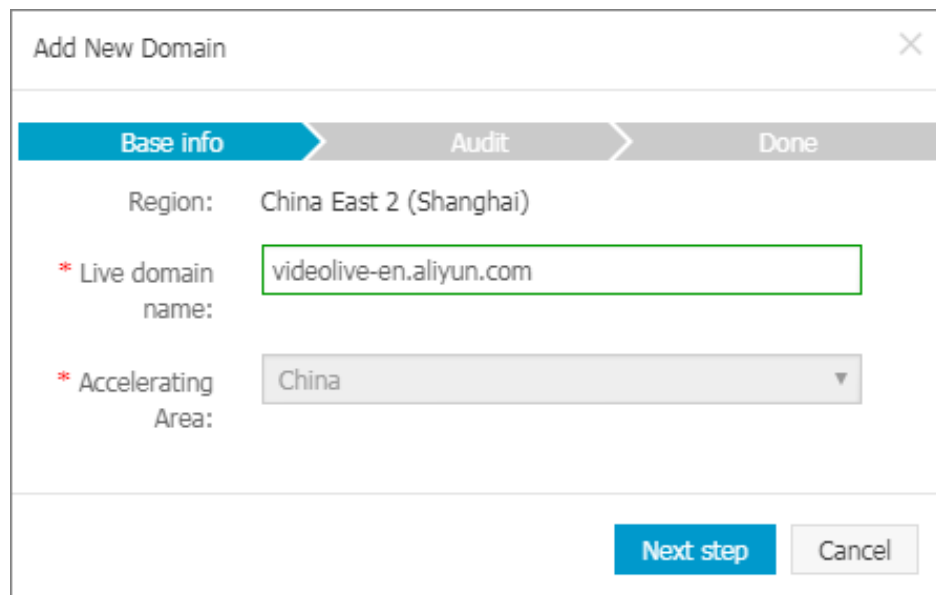
Click **Add New Domain**.



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

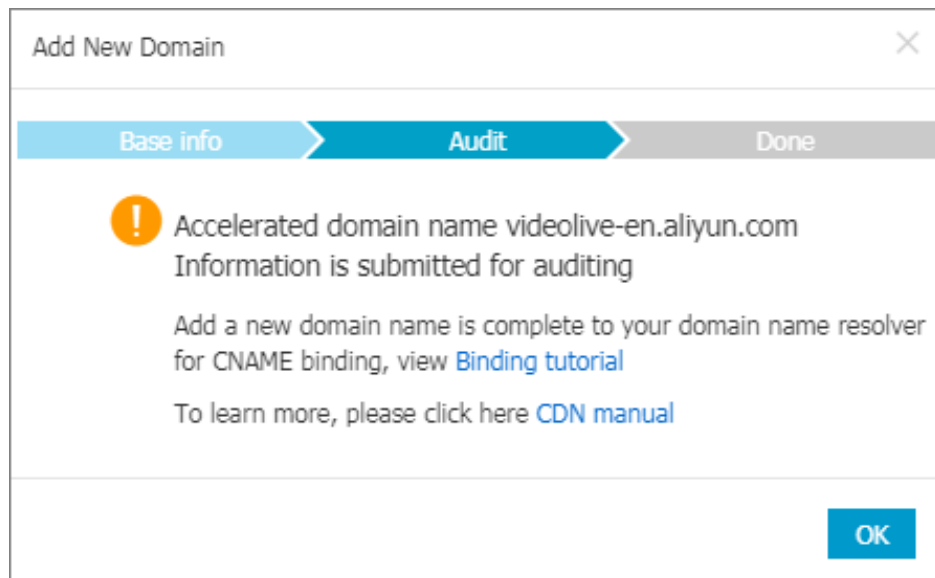
Base info Audit Done

Region: China East 2 (Shanghai)

* Live domain name: videolive-en.aliyun.com

* Accelerating Area: China

Next step Cancel



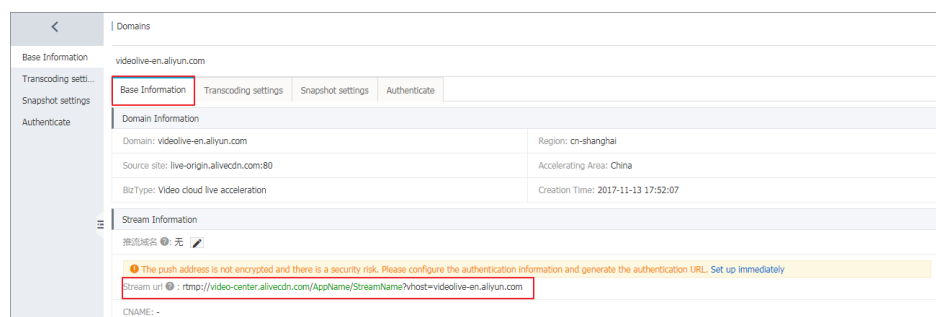
Get the streaming address.

Select the region.

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

Live Video Console		Current Billing Type: Bandwidth				
Domains	Streams	Snapshots	Resource Monitor	Traffic & Bandwidth	Overview	User Access Data
Hot point	Secure Monitor					
Domains		Singapore	China North 2 (Beijing)	China East 2 (Shanghai) 1	Refresh	Add New Domain
Domain Name	CNAME	Creation Time	Status	Actions		
document4.aliyun.com	document4.aliyun.com.w.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail	Disable	Delete
cc.aliyun.com	cc.aliyun.com.w.aliyun.com	2017-10-28 15:39:09	Normal	Detail	Disable	Delete
videolive.aliyun.com	videolive.aliyun.com.w.aliyun.com	2017-11-09 11:20:40	Normal	Detail	Disable	Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.aliyun.com	2017-11-13 17:52:07	Normal	2 Detail	Disable	Delete

Click the **Base Information** tab and then get **Stream url** 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 calculated 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 calculated 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: aliuncdnexp1234 (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-aliuncdnexp1234
```

The server calculates HashValue according to the signature string

```
HashValue = md5sum("/video/standard/1K.html-1444435200-0-0-aliuncdnexp1234") =  
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.

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

Select the region.

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

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
document4.aliyun.com	document4.aliyun.com.w.kunlunp.com	2017-09-14 09:54:46	Normal	Detail Disable Delete
cc.aliyun.com	cc.aliyun.com.w.kunlunp.com	2017-10-28 15:39:09	Normal	Detail Disable Delete
videolive.aliyun.com	videolive.aliyun.com.w.kunlunp.com	2017-11-09 11:20:40	Normal	Detail Disable Delete
videolive-en.aliyun.com	videolive-en.aliyun.com.w.kunlunp.com	2017-11-13 17:52:07	Normal	Detail Disable Delete

Click **Authenticate**.

Domains

videolive-en.aliyun.com

Base Information | Transcoding settings | Snapshot settings | **Authenticate**

Authentication settings

Auth function : [View the authentication instructions](#)

Enable **Auth function**.

Authentication settings

Auth function : [View the authentication instructions](#)

Auth type Type A

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

Auth type Type A

Auth KEY:

* Main KEY

Standby KEY

Note: Authentication KEY can only enter uppercase and lowercase letters, numbers, length 6 to 32

Expire time: S

OK Cancel

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 shows the 'Domains' management page in the ApsaraVideo Live console. The 'Base Information' tab is selected, displaying details for the domain 'videolive-en.aliyun.com'. The 'Stream Information' section shows the 'Stream URL' as 'rtmp://video-center.alivecdn.com/AppName/StreamName?host=videolive-en.aliyun.com'. Below this, a warning message states: 'The push address is not encrypted and there is a security risk. Please configure the authentication information and generate the authentication URL. Set up immediately'. The 'Authentication URL Calculator' is shown below, with the following fields and values:

- Stream URL:** `rtmp://video-center.alivecdn.com/AppName/StreamName?host=videolive-en.aliyun.com` (1)
- Auth type:** ☒ Type A
- Auth KEY:** `abcd1234` (2)
- Expire time:** `1800` s (3)
- Timestamp:** `1510644802`
- Auth URL:** `rtmp://video-center.alivecdn.com/AppName/StreamName?host=videolive-en.aliyun.com&auth_key=1510644802-0-0-c635842831cf1a4066ef4012f3607291`
- Generate** button (4)

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.

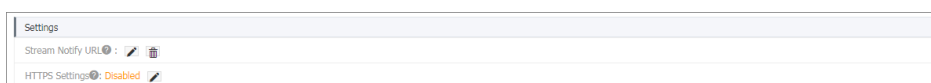
Click **Domains** in the left-side navigation pane.

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.

Alibaba Cloud Certificates Service

Region :

Asia Pacific SE 2

EU Central 1

Middle East 1

Category :

OV SSL

OV SSL offers encryption to implement strict identity verification for applicants. It certifies trusted identity.

Select Brand :

Entrust

Entrust Datacard provides the most stringent organization validation certificate

Type of Domain :

Wildcard Domain

Single Domain

Multiple Domain

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 :

1

2

3

4

5

10

20

50

100

1 Domain(Sans/Subdomain/FQDN/Wildcard)

Current Selected

Region:

Asia Pacific SE 2

Category:

OV SSL

Select Brand:

Entrust

Type of Domain:

Wildcard Domain

Domains:

1

Quantity:

1

Duration:

1year(s)

Fee

\$ 1049.00

Buy Now

Quantity :

1

Duration :

1 Year

2 Years

3 Years

Expired after one year

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

Current Billing Type: Bandwidth

Domains

Streams

Snapshots

Resource Monitor

Traffic & Bandwidth

Overview

User Access Data

Hot point

Secure Monitor

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
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.kunlunpi.com	2017-09-14 09:54:46	Normal	Detail Disable Delete

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 : http://video-center.alivecdn.com/AppName/StreamName?vhost=document4.aliyun.com	
CNAME: document4.aliyun.com.w.kunlunpl.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)

* Private key:

(Pem encoding)

Jump type:

☒ **Default** ☐ **HTTPS -> HTTP**
☐ **HTTP -> HTTPS**

By default, both HTTPS and HTTP requests are supported

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

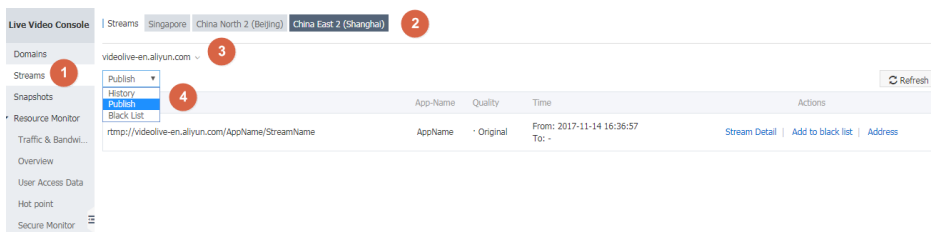
Log on to the ApsaraVideo Live console.

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

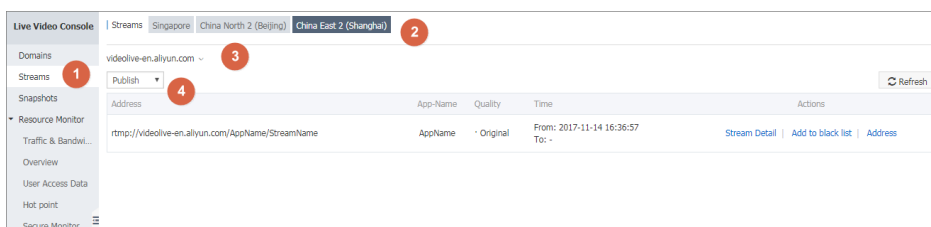
Log on to the ApsaraVideo Live console.

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

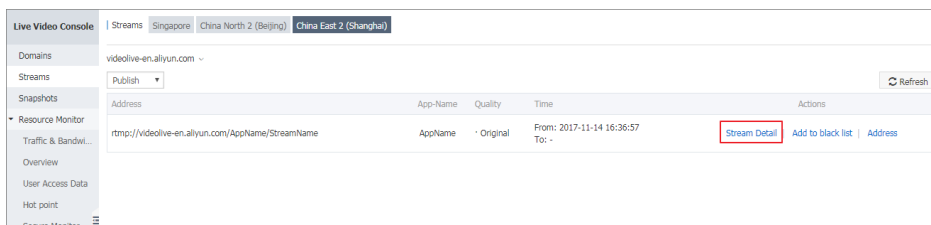
Select the region.

Select the domain name.

Select the stream status.



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

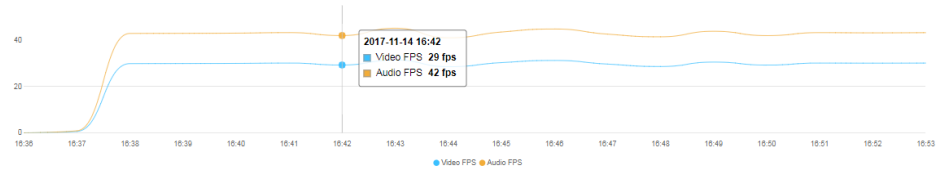


View the stream data such as Publish info, Video FPS, Audio FPS and Bit Rate.

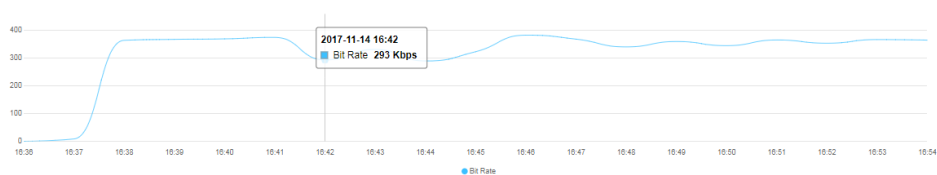
Publish Info

Stream Detail		
Publish Info		
Stream URL: rtmp://videolive-en.aliyun.com/AppName/StreamName		
Domain: videolive-en.aliyun.com	AppName: AppName	StreamName: StreamName
Time duration: 00:20:03	AVG Bit Rate: 323.44 Kbps	AVG FPS: 27.91 fps [video] 40.09 fps [audio]

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.

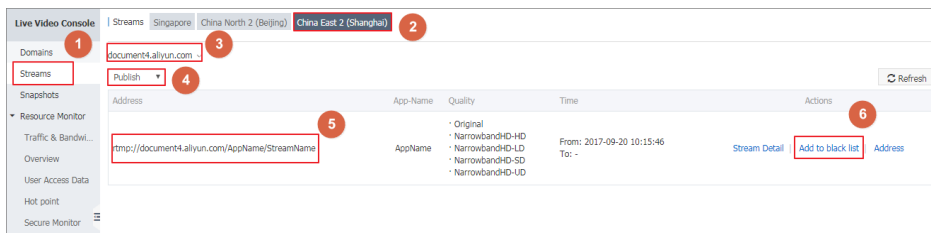
Click **Streams** in the left-side navigation pane.

Select the region.

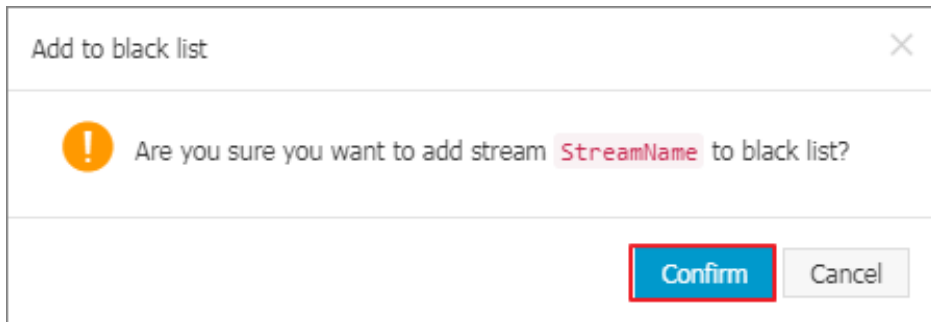
Select the domain name.

Select the status of the stream.

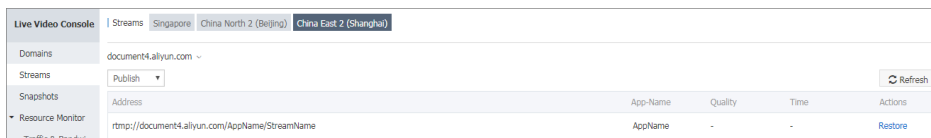
Select the address and click **Add to black list** on the right side.



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.

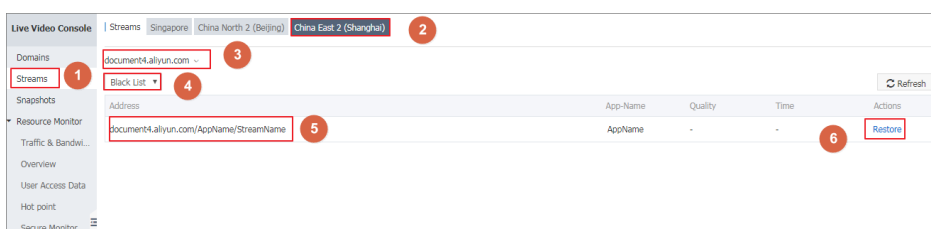
Click **Streams** in the left-side navigation pane.

Select the region.

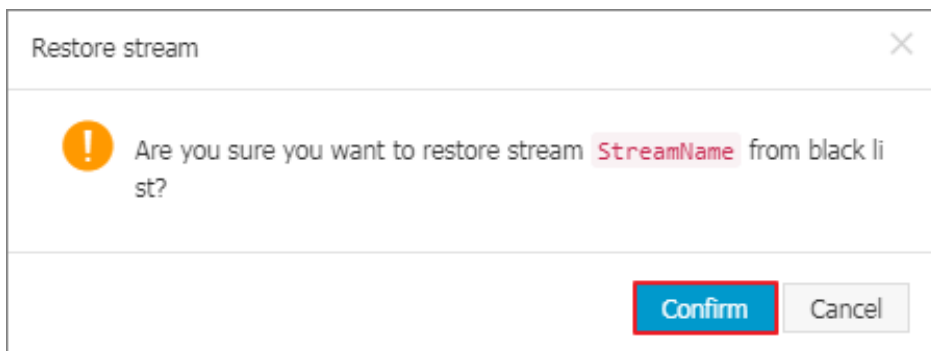
Select the domain name.

Select **Black List**.

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



Click **Confirm**.



Playback address

Live video addresses can be classified into original image addresses and transcoded addresses.

Original image address

Original images are original video streams that are not transcoded. The original image address is in the format of Playback domain name+AppName+StreamName.

Alibaba Cloud provides three playback protocols that can be applied to multiple terminals and platforms.

	Advantage	Disadvantage	Latency	Feature	Applicable terminal
RTMP	Low latency	Unstable during high concurrency Players that support related protocols must be developed for iOS. Use of non-	1s to 3s	TCP persistent connection	PC end

		standard TCP ports			
HLS	Cross-platform Playing using HTML5 decompressed packet	High latency	>10s	HTTP short connection	PC end and mobile end
HTTP-FLV	Low latency Playing using HTML5 decompressed packet	Playing only using integrated SDKs	1s to 3s	TCP persistent connection	PC end

Playback addresses of different specifications:

RTMP format: `rtmp:// live.aliyun.com/{AppName}/{StreamName}`

FLV format: `http:// live.aliyun.com/{AppName}/{StreamName} .flv`

M3U8 format: `http:// live.aliyun.com/{AppName}/{StreamName} .m3u8`

Example

The streaming address is:

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

The corresponding playback addresses are:

`http:// play.aliyunlive.com/{live}/{3}`

`http:// play.aliyunlive.com/{live}/{3}.flv`

`http:// play.aliyunlive.com/{live}/{3}.m3u8`

Transcoding template

The ApsaraVideo Live video transcoding service provides **NarrowbandHD templates**.

The **NarrowbandHD template** relies on Alibaba Cloud' s proprietary narrowband HD image processing technology to achieve a higher compression ratio while maintaining the same image quality and saving more live broadcast traffic.

Playback address

Rule of playback address splicing: **Live video domain name + AppName + StreamName +**

Transcoding template ID

Template\Specification	LD	SD	HD	UHD
Original image	None	None	None	None
High-quality transcoding template	ld	sd	hd	ud

Example of playback address splicing

RTMP format: rtmp://+{Live video domain name}+/{AppName}+/{StreamName}+{Transcoding template ID}

Example: rtmp:// live.aliyunlive.com/AppName/StreamName_sd

FLV format: http://+{Live video domain name}+/{AppName}+/{StreamName}+{Transcoding template ID}.flv

Example: http:// live.aliyunlive.com/AppName/StreamName_sd.flv

M3U8 format: http://+ {Live video domain name}+ / {AppName} / + / {StreamName}.m3u8

Example: http:// livetest01.aliyunlive.com/AppName/StreamName.m3u8

Currently playback of the M3U8 format is not supported.

Template parameters

Template name	Template ID	Resolution (self-adaptive height and width)	Bit rate (kbps)
LD	ld	360	≤420
SD	sd	432	≤580
HD	hd	648	≤1100
UHD	ud	1080	≤1900

Restrictions

A standard template and a high-quality template cannot be used at the same time. Only one

transcoding template type is supported for each AppName.

Each domain name supports a maximum of two channels of transcoding concurrent streams. That is, a maximum of two channels of live broadcast using transcoding templates can be conducted under one domain name.

If the provided ApsaraVideo Live service cannot meet your current business needs, you can open a ticket to describe your needs or contact your customer service manager.

Transcoding rules

ApsaraVideo Live supports latency-based transcoding. If the system detects that a channel of live stream is not being watched, the system does not perform transcoding. If the system detects watching behavior, transcoding is immediately performed. Transcoding stops if no watching behavior is detected in 10 minutes.

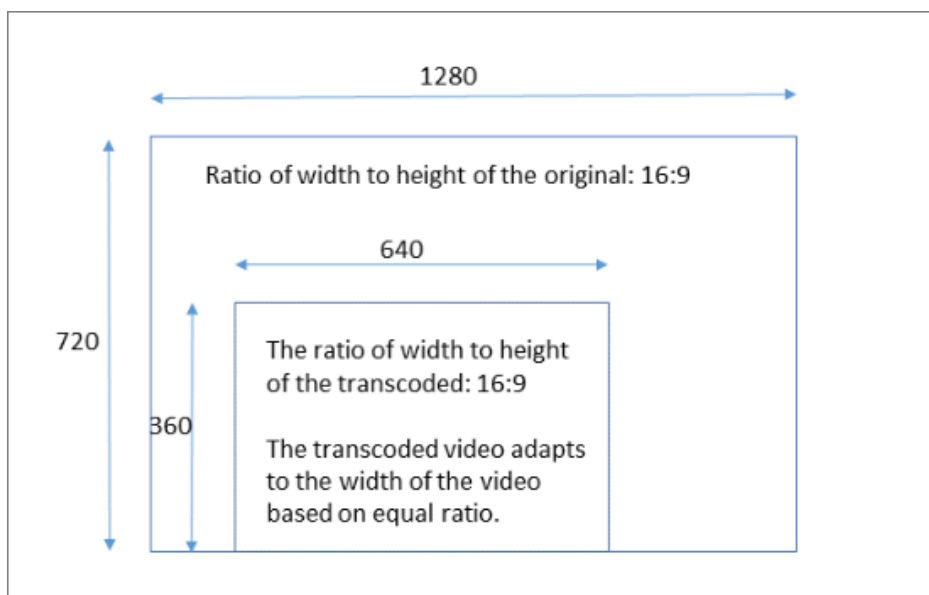
After a channel of video is transcoded, transcoded video is played for viewers.

Transcoding is a not mandatory service. You can configure transcoding as needed.

- Currently transcoding supports FLV and RTMP formats.

Width self-adaptation

Transcoding uses self-adaptive width algorithms. Width of transcoded video is self-adaptive according to the height of the original streaming video.



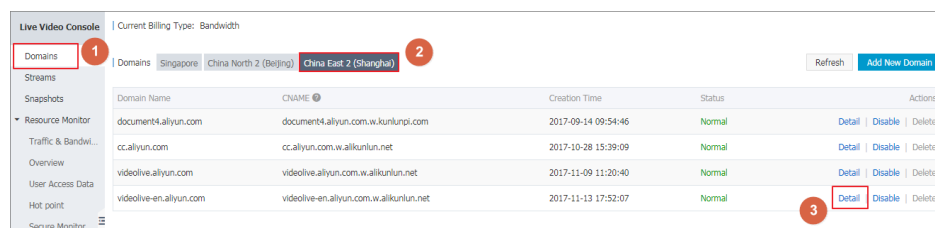
Procedure

Log on to the ApsaraVideo Live console.

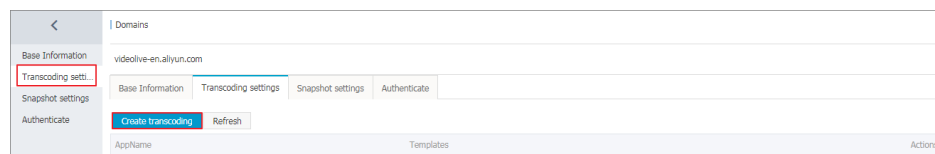
Click **Domains** in the left-side navigation pane.

Select the region.

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



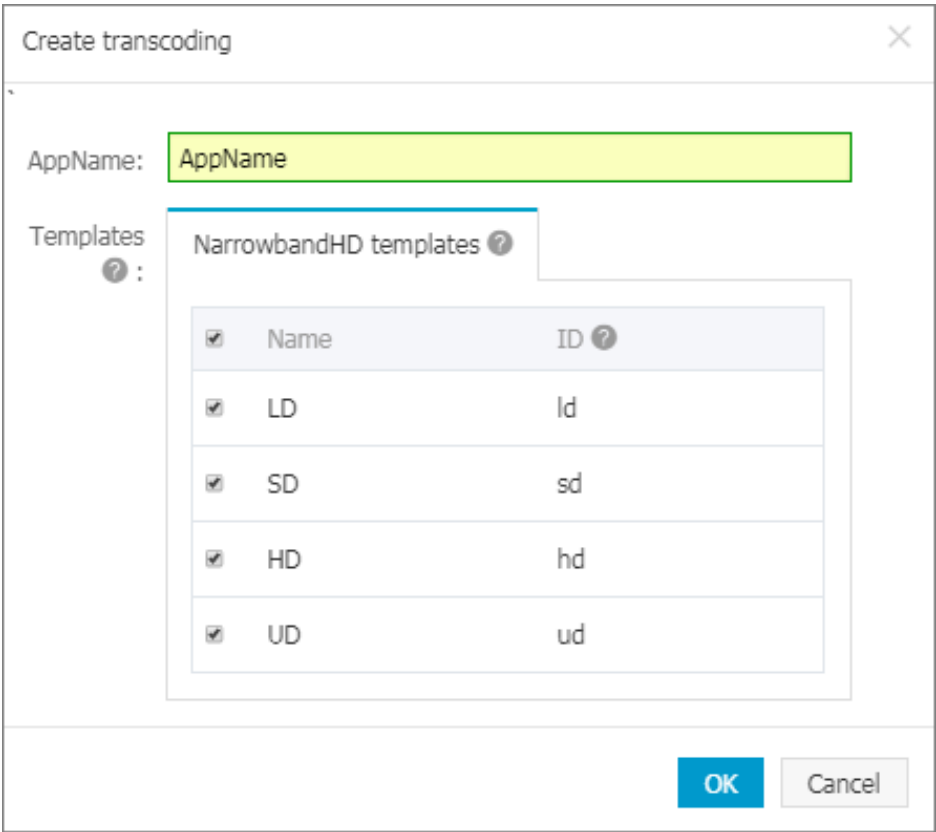
Click **Transcoding settings** and click **Create transcoding**.



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

Enter the AppName.

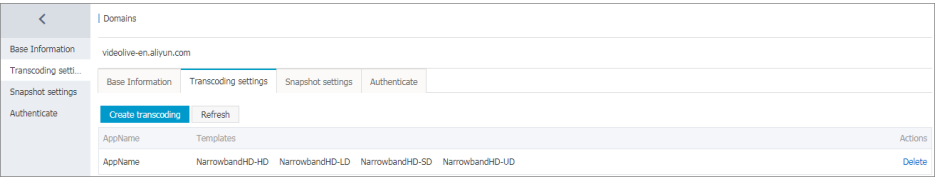
The transcoding template take effect only when the AppName entered matches that in the streaming address.



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](#).

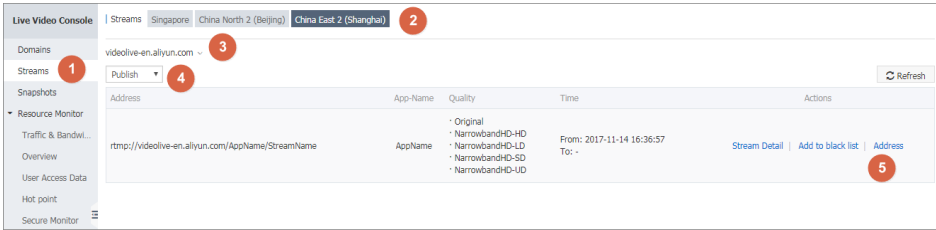
Click **Streams** in the left-side navigation pane.

Select the region.

Select the domain name.

Select the stream status.

Select the streaming address, and click **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** and **Play** link are displayed.

Click **Copy** and then click **Confirm**. Paste the address to a player to enable video playback. You can also click **Play** and then click **Confirm** to play the video in a pop-up web player.

Address

● Playing video will cause t

http://videolive-en.aliyun.com/AppName/StreamName_ud.flv?auth_key=1510652806-0-0-3d820b48ab79fc8df35b9ac1397b0ebc

NarrowbandHD-UD

RTMP Format: *rtmp://videolive-en.aliyun.com/AppName/StreamName_...*

FLV Format: *http://videolive-en.aliyun.com/AppName/StreamName_...*

Copy | Play

NarrowbandHD-HD

RTMP Format: *rtmp://videolive-en.aliyun.com/AppName/StreamName_...*

FLV Format: *http://videolive-en.aliyun.com/AppName/StreamName_...*

NarrowbandHD-SD

RTMP Format: *rtmp://videolive-en.aliyun.com/AppName/StreamName_...*

FLV Format: *http://videolive-en.aliyun.com/AppName/StreamName_...*

NarrowbandHD-LD

RTMP Format: *rtmp://videolive-en.aliyun.com/AppName/StreamName_...*

FLV Format: *http://videolive-en.aliyun.com/AppName/StreamName_...*

Original

RTMP Format: *rtmp://videolive-en.aliyun.com/AppName/StreamName?...*

FLV Format: *http://videolive-en.aliyun.com/AppName/StreamName....*

M3U8 Format: *http://videolive-en.aliyun.com/AppName/StreamName....*

OK

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.

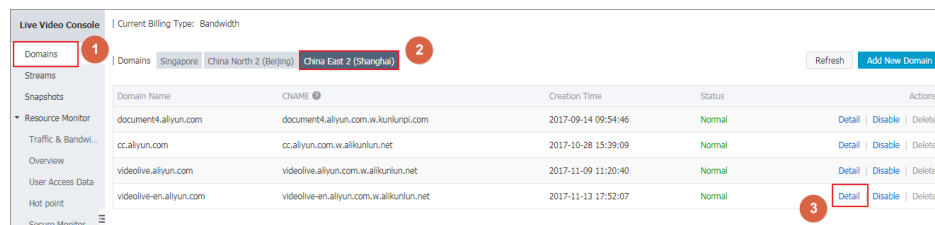
Procedure

Log on to the ApsaraVideo Live console.

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

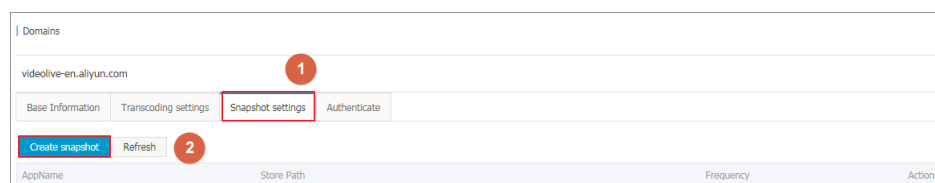
Select the region.

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



Click **Snapshot settings**.

Click **Create snapshot**.



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

Create snapshot

AppName:

Frequency: **Seconds** (between 5 ~ 3600 seconds)

Store Path: **videolive-bucket**

ObjectName : ☐ Overwrite: ?
oss://videolive-bucket/AppName/StreamName/AppName/{StreamName}.jpg
☒ No Overwrite: ?
oss://videolive-bucket/AppName/StreamName/AppName/{StreamName}...

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**.

OSS file management

videolive- ▼

Path:

File Name	Size	Type	Creation Time
AppName/	-		-

pre

next

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 No 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.

No 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 AppName 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.

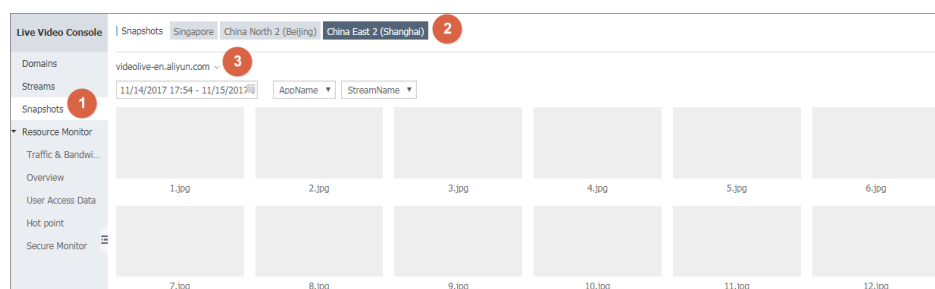
Procedure

Log on to the ApsaraVideo Live console.

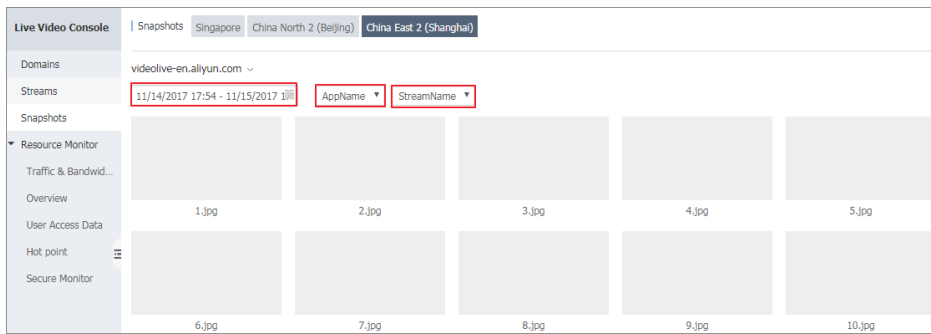
Click **Snapshots** in the left-side navigation pane.

Select the region.

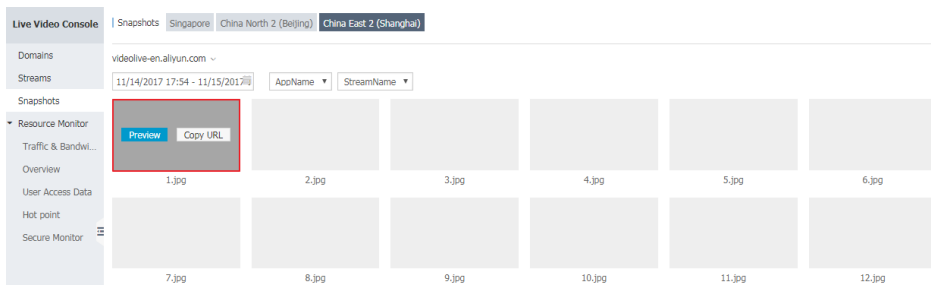
Select the domain name.



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



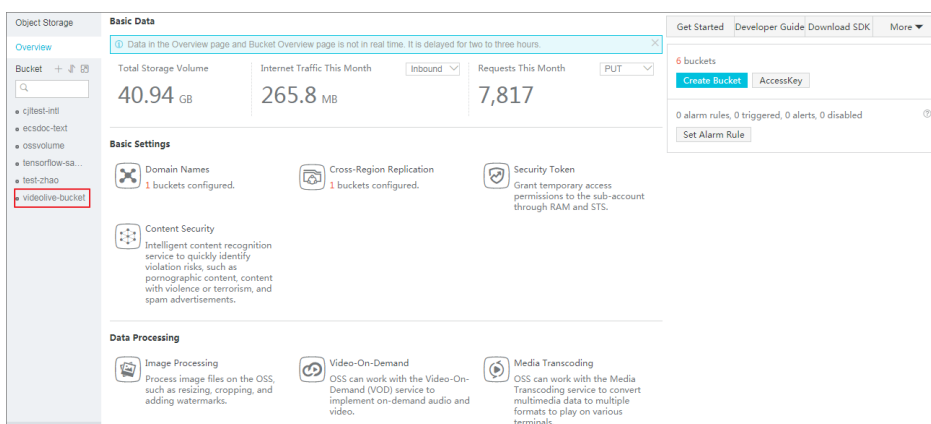
Move your cursor over a snapshot in the list. Buttons for enlarging the image and copying the URL are displayed. You can perform the operations as needed.



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

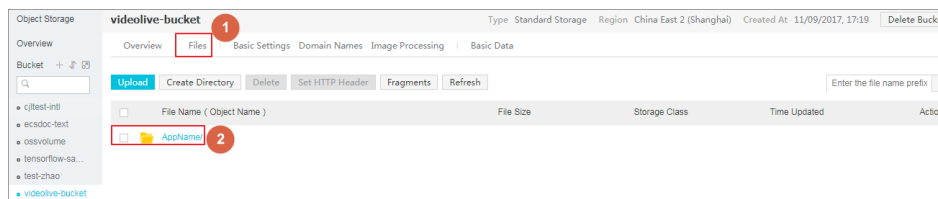
Log on to the OSS console.

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



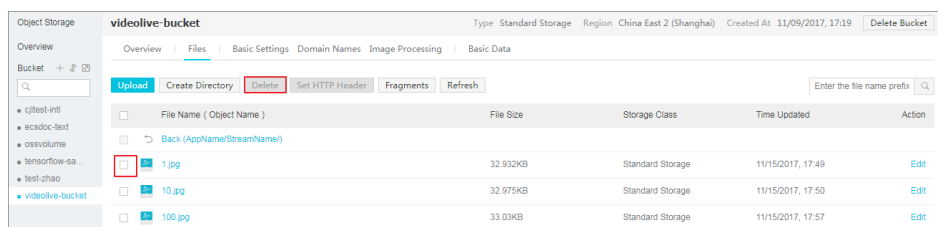
Click **Files**.

Select the folder name.

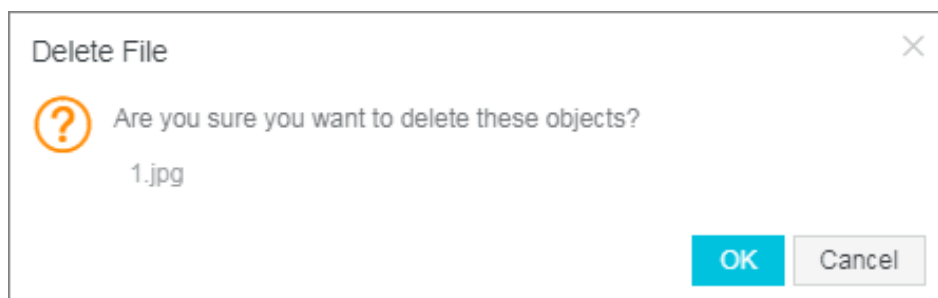


Select the snapshot to be deleted, and click **Delete**.

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



Click **OK**.



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 (Required): grants permission to use ApsaraVideo Live and uses the built-in **AliyunLiveFullAccess** authorization policy;

OSS (Required): grants permission to use the screenshot storage service, which can be customized as needed;

CDN (Required): grants permission to play videos, which can be customized as needed.

Authorized operations

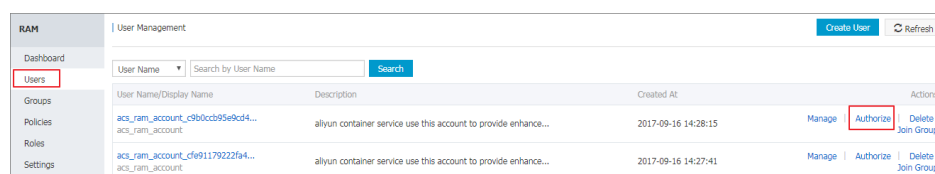
Authorization on ApsaraVideo Live

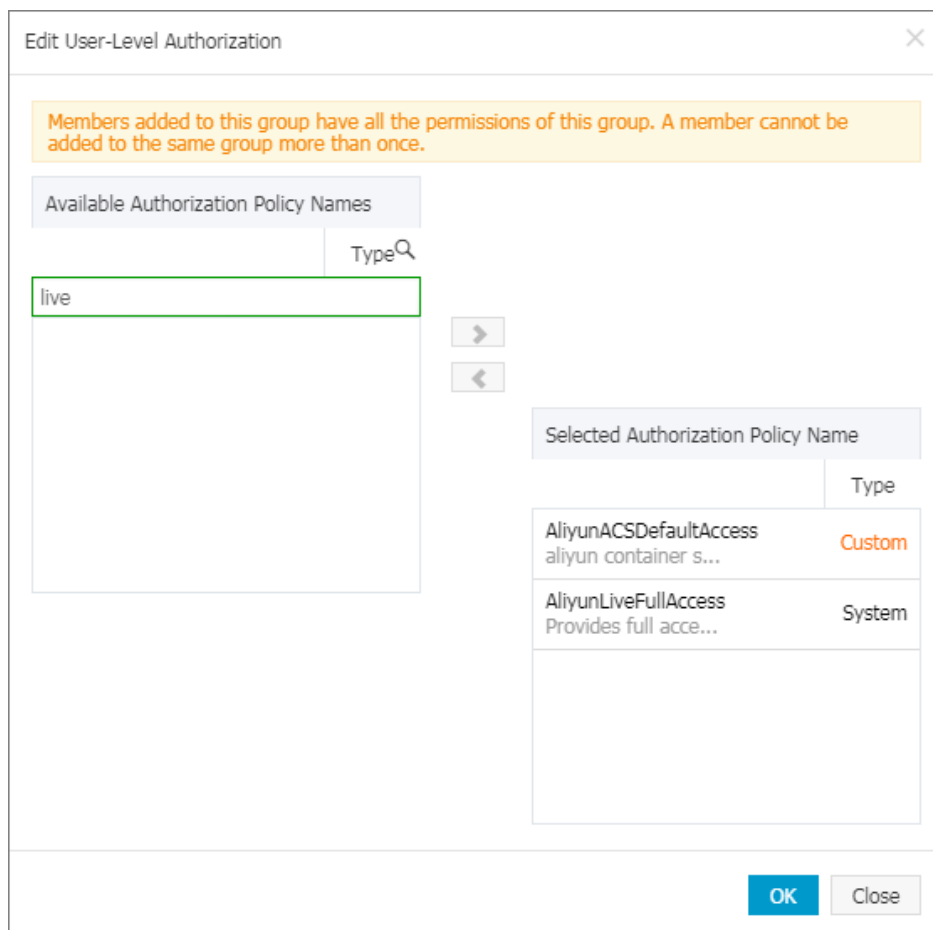
If a subaccount needs to use ApsaraVideo Live, you must grant the subaccount the permission to use ApsaraVideo Live. You can directly use the built-in **AliyunLiveFullAccess** authorization policy as follows:

Log on to the RAM console.

Click **Users**.

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





Description of custom authorization policy creation

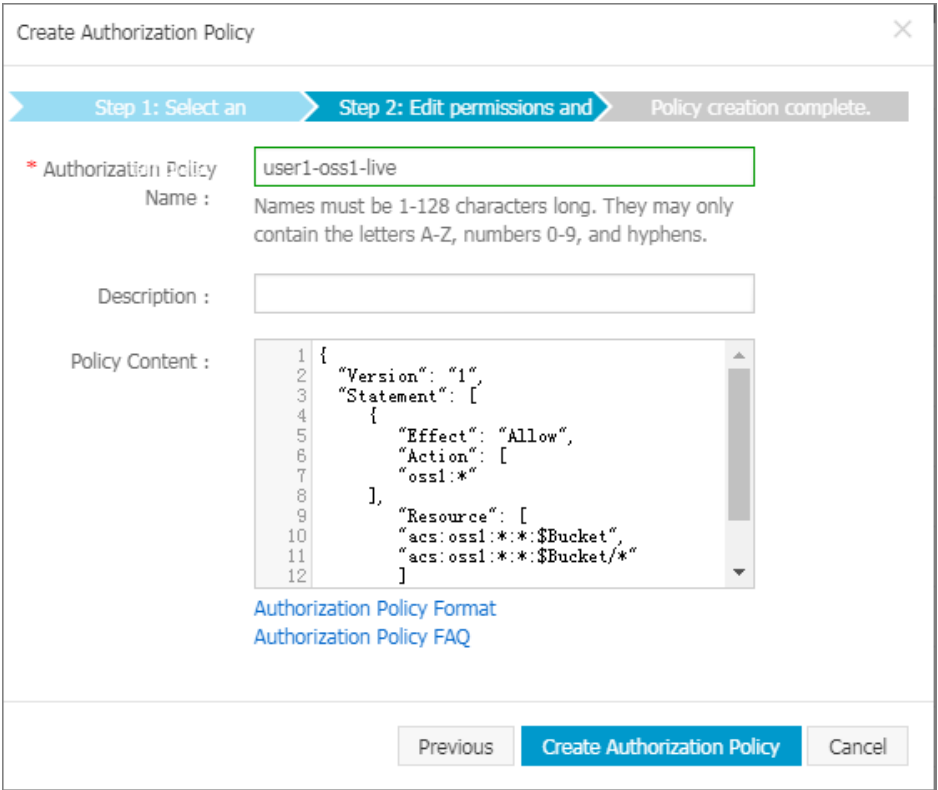
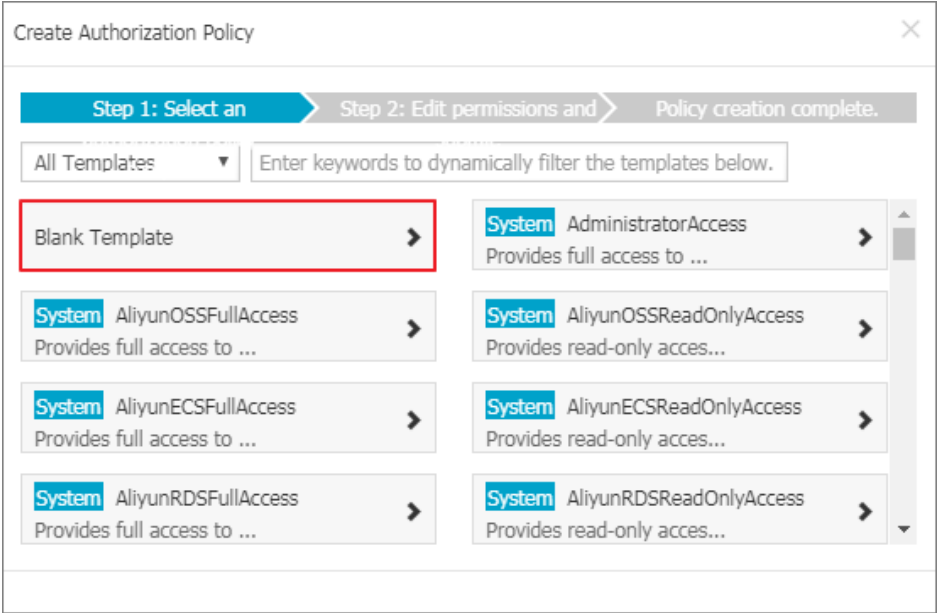
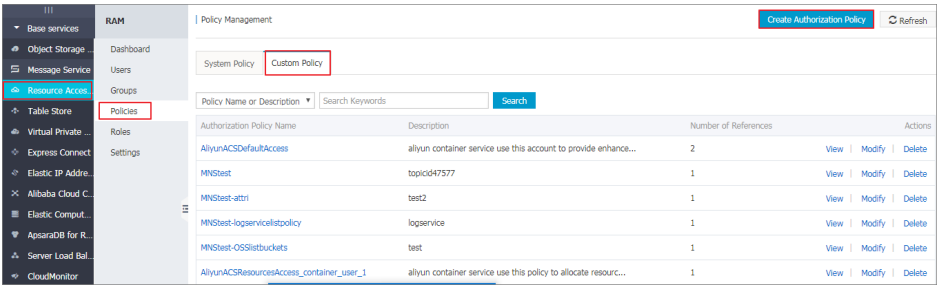
You can customize authorization policies and assign them to specified subaccounts as follows:

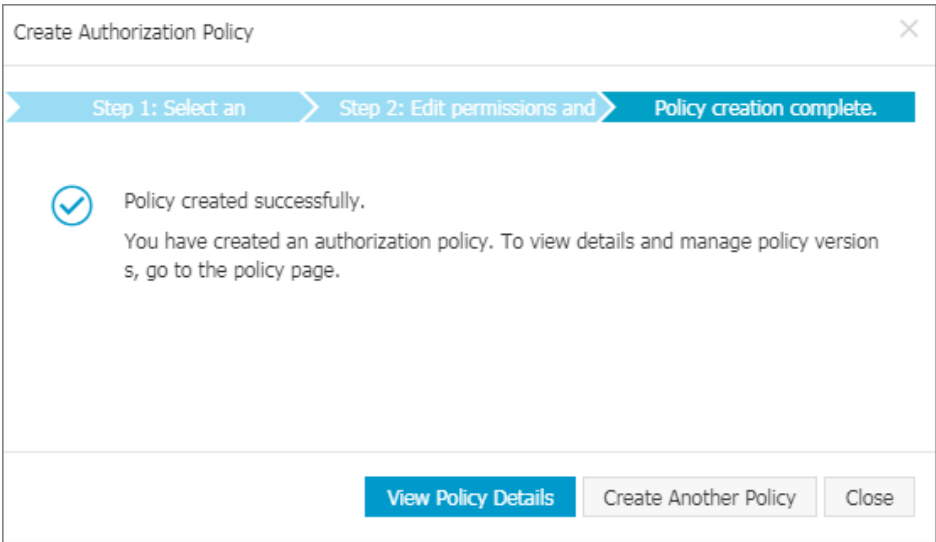
Log on to the RAM console.

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.





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	View Modify Delete
MNStest	topicid47577	1	View Modify Delete
MNStest-attri	test2	1	View Modify Delete
MNStest-logservicepolicy	logservice	1	View Modify Delete
MNStest-OSSlistbuckets	test	1	View Modify Delete
AliyunACSResourcesAccess_container_user_1	aliyun container service use this policy to allocate resourc...	1	View Modify Delete
user1-oss1-live		0	View Modify Delete

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"
    }
  ]
}

```

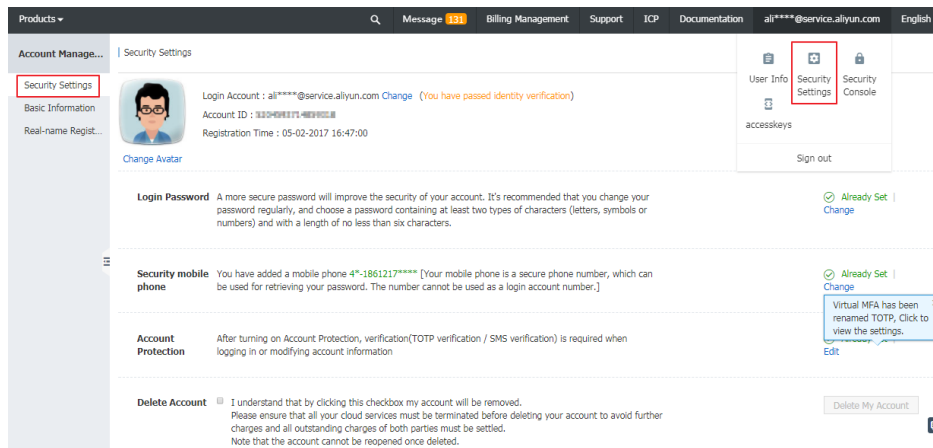
The following variables are used in the resource authorization policies of each service. Replace them with your actual resource instance name:

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"> - Network bandwidth: The total traffic and peak bandwidth under the current domain name in the selected acceleration region and ISP within a certain time segment. - Back-to-source bandwidth: The back-to-source traffic monitored under the current domain name within a certain time segment. - Daily traffic statistics: 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.
Access overview	<ul style="list-style-type: none"> - Hit rate: Traffic hit rate and request hit rate,

	<p>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.</p> <ul style="list-style-type: none"> - Access QPS: The number of accesses per second under the current domain name within a certain time segment. - HTTP CODE: The HTTP status code.
User access data	<ul style="list-style-type: none"> - PV: The number of times resource files under the current domain name are accessed within a certain time segment. - UV: The number of unique IP addresses that request resources under the current domain name within a certain time segment. - User region distribution: Distribution of users in terms of accessed sites, response time, and download speed under the current domain name within a certain time segment. - Carrier proportions: Shares of the carrier under the current domain name within a certain time segment.
Hot point	<ul style="list-style-type: none"> - Popular URLs: Popular URLs with a high number of access requests, and popular URLs with heavy traffic. - Popular referers: Popular referers with a high number of access requests, and popular referers with heavy traffic. - File response proportions: Response of files with a high number of access requests, and response of files with heavy traffic.
Security monitor	<ul style="list-style-type: none"> - 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.

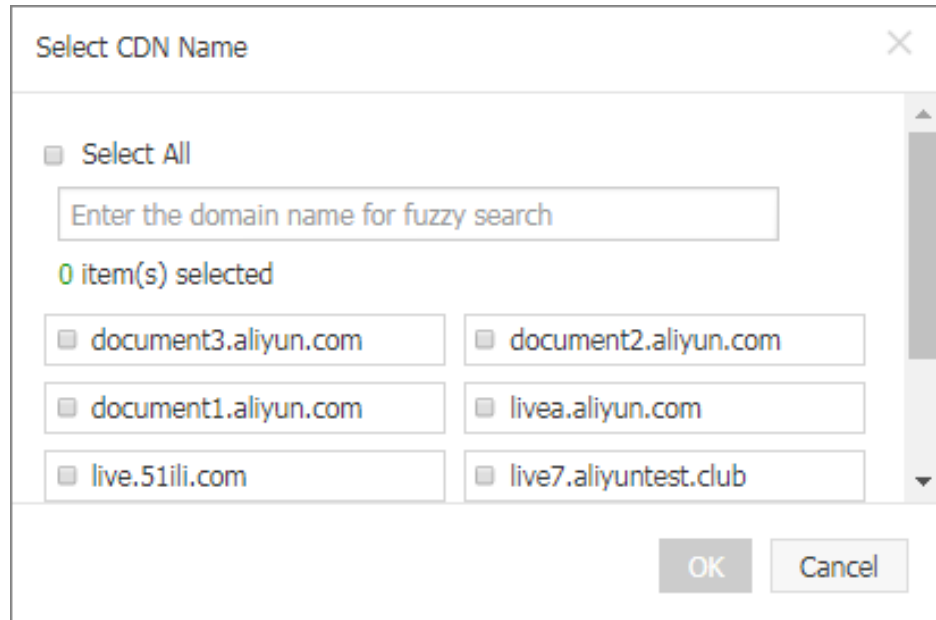
Click **Traffic&Bandwidth**.

Select **Monitored Domain Names**.

Click **Select CDN Name**.

Select the domain names.

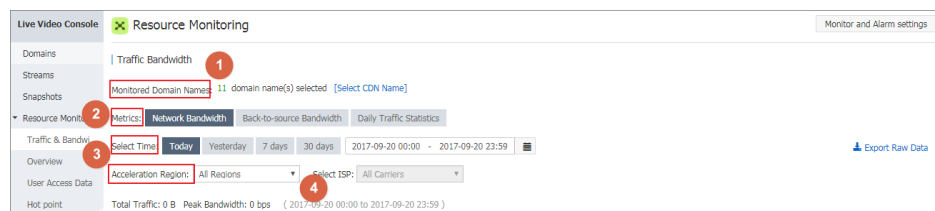
Click **OK**.



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.

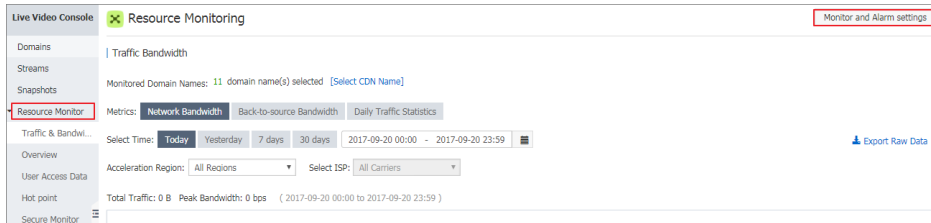
Procedure

Log on to the ApsaraVideo Live console.

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

Click **Traffic&Bandwidth**.

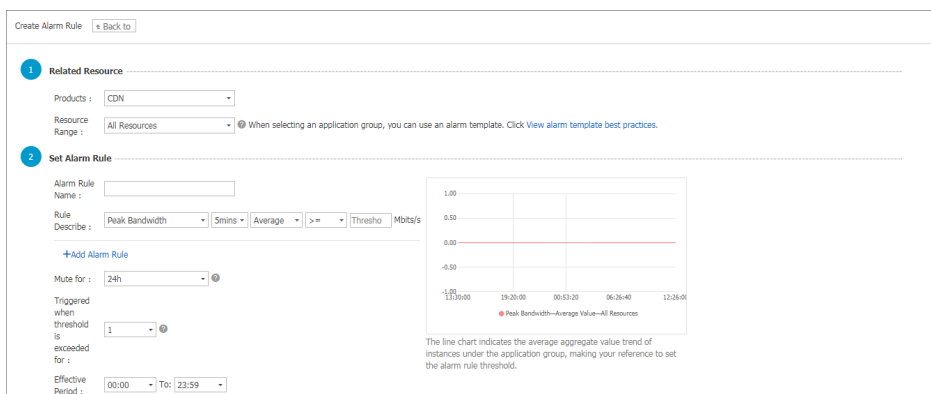
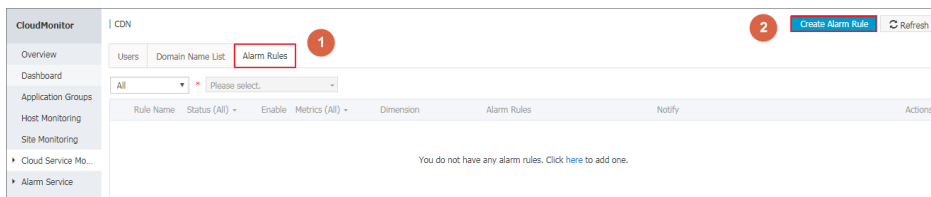
Click **Monitor and Alarm settings** in the upper-right corner to go to the CloudMonitor console.



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.



1

Notification Method

Notify :

Contact Group

All

Search

Default Contact Group

GPU

Quickly create a contact group

Selected Groups 0 count

All

Notification Methods :

Email+Ali

Email Remark :

Optional

Confirm

Cancel