Live

Troubleshooting

Issue	01
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Contents

1 Adding a Domain Name Failed

Symptom

When you add an ingest domain name or a streaming domain name, an error message indicating the addition failure is displayed.

Possible Causes

- Cause 1: Your account is in arrears. A message is displayed, indicating that the user is in the deleted status.
- Cause 2: The domain name has been added to Live. A message is displayed, indicating that a domain name of Live cannot be added again.
- Cause 3: The domain name has not been licensed. A message is displayed, indicating that the ICP filing number is not found.
- Cause 4: The domain name has been added to Live. A message indicating failed data synchronization to CDN is displayed.

Solution for Cause 1

1. Log in to **Billing Center**.
2. On the **Overview** page, view the available quota.
3. Click **Top Up** if your account has any outstanding amount.
4. Log in to the **Live console** and add the domain name again.

Solution for Cause 2

Check whether the domain name has been added in other regions or Live accounts. Live does not allow adding the same domain name repeatedly. Try with a domain name that has not been added.

Solution for Cause 3

Both ingest domain names and streaming domain names to be added in the CN North-Beijing4 region must be licensed before they can be used for pushing and playing livestreams on the Live console.

All websites with their own domain names that operate inside the Chinese mainland are required to complete Internet Content Provider (ICP) filing. You need

to complete ICP filing for your domain name. After you obtain the ICP filing number, log in to the **Live console** to add the domain name.

Solution for Cause 4

If you delete a domain name and try to add it again, the addition may fail because the deletion has not been completed. In this case, you need to **submit a service ticket** for technical support. After the issue is resolved, log in to the **Live console** again to add the domain name.

If the issue persists, you can **submit a service ticket** for technical support.

2 Associating Domain Names Failed

Symptom

When you associate an ingest domain name with a streaming domain name, an error message indicating the association failure is displayed.
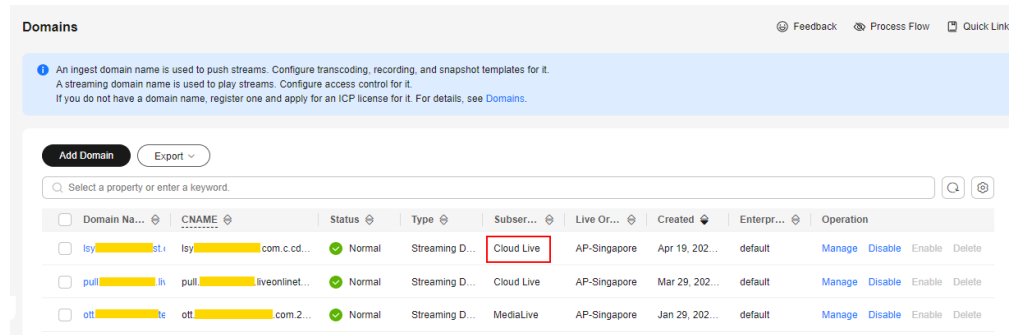
Possible Causes

- Cause 1: The **Subservice Type** of the streaming domain name is not **Cloud Live**.
- Cause 2: The **Subservice Type** of the ingest domain name is not **Cloud Live**.
- Cause 3: The region of the origin server of the streaming domain name is different from that of the ingest domain name.

Solution for Cause 1

If the **Subservice Type** of the streaming domain name is not **Cloud Live**, the parameters of **Associate Ingest Domain** are not displayed on the **Basic Info** page.

1. Log in to the **Live console**.
2. In the navigation pane, choose **Domains**, as shown in **Figure 2-1**.

   In the domain name list, check whether the **Subservice Type** of the streaming domain name is **Cloud Live**.

   - If yes, the subservice type is not the failure cause.
   - If no, the **Subservice Type** of the streaming domain name is **MediaLive**. You need to create another streaming domain name and set its **Subservice Type** to **Cloud Live**.

Figure 2-1 Domains
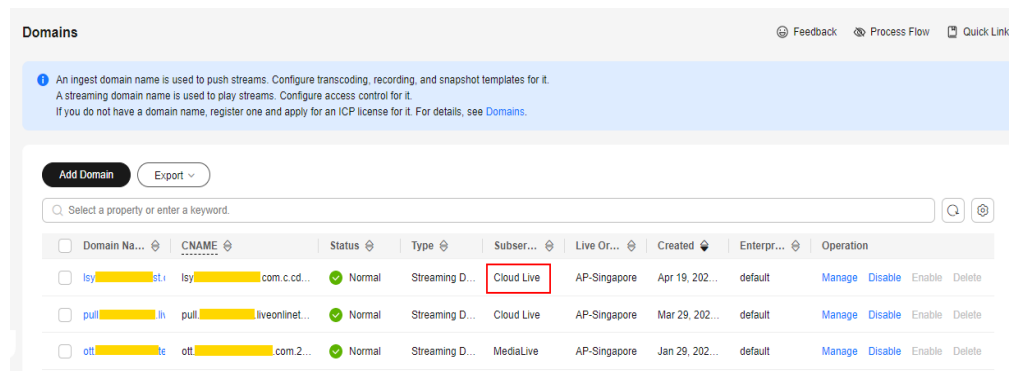

Solution for Cause 2

If you attempt to associate an ingest domain name whose **Subservice Type** is **MediaLive** with a streaming domain name, an error message will be displayed, indicating that domain names of MediaLive cannot be associated.

1. Log in to the **Live console**.

2. In the navigation pane, choose **Domains**, as shown in **Figure 2-2**.

   In the domain name list, check whether the **Subservice Type** of the ingest domain name is **Cloud Live**.

   – If yes, the subservice type is not the failure cause.

   – If no, the **Subservice Type** of the ingest domain name is **MediaLive**. You need to create another ingest domain name and set its **Subservice Type** to **Cloud Live**.

Figure 2-2 Domains


Solution for Cause 3

An ingest domain name can be associated with a streaming domain name only when their origin servers are in the same Huawei Cloud region. If not, an error message is displayed during the association, indicating that the region verification failed.

1. Log in to the **Live console**.

2. In the navigation pane, choose **Domains**, as shown in **Figure 2-3**.

In the domain name list, check whether the origin server of the streaming domain name and that of the ingest domain name are in the same Huawei Cloud region (CN North-Beijing4 or AP-Singapore).

– If yes, the region is not the failure cause.

– If no, you need to create another ingest domain name and set its **Live Origin Server** to that of the streaming domain name.

Figure 2-3 Domains
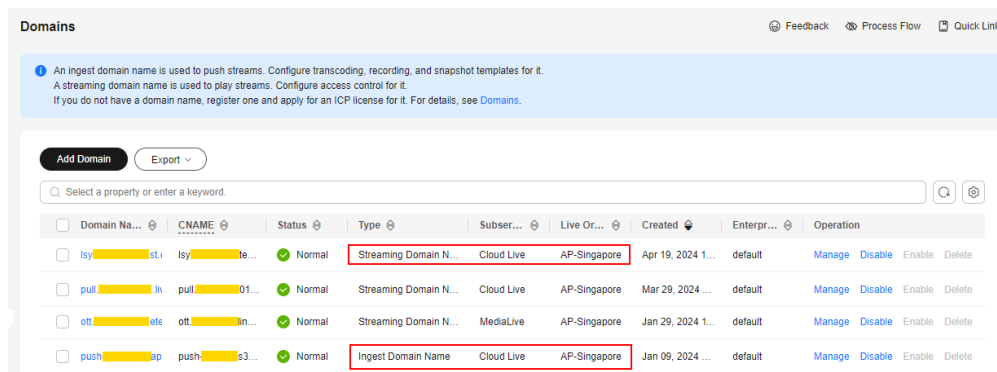
3 Livestream Push Failed

Symptom

After you added the domain names, stream push using the ingest URL failed.

Perform the following operations to locate the cause and rectify the fault:

- **Checking the Network on the Streaming End**
- **Checking the Domain Name Status**
- **Checking Whether the CNAME Record Has Taken Effect**
- **Checking Whether the Ingest URL Is Valid**
- **Checking Whether the Ingest URL Is in Use**
- **Checking Whether the Livestream Has Been Disabled**

Checking the Network on the Streaming End

You can perform an online bandwidth test to check the network on the streaming end. If the network is abnormal, change the network and push the livestream again.

Checking the Domain Name Status

If the domain name is in the **Configuring** or **Disabled** status, stream push will fail. Perform the following steps to check the domain name status:

1. Log in to the **Live console**.
2. In the navigation pane, choose **Domains**.
3. In the domain name list, check whether the domain status is **Normal**.

Figure 3-1 Domains
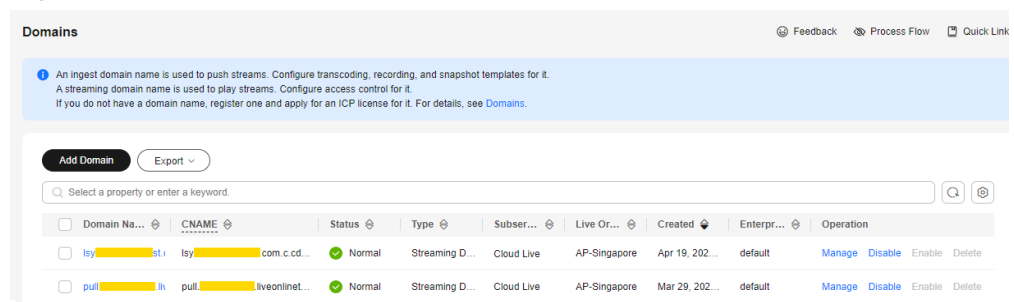
- If the status is **Disabled**, click **Enable** in the **Operation** column.

- If the status is **Configuring**, the possible cause is that the domain name has not taken effect, has expired, or contains pornographic or gambling-related content. **Submit a service ticket** for technical support.

Checking Whether the CNAME Record Has Taken Effect

By default, upstream acceleration is enabled. If a CNAME record has not been configured for the ingest domain name, the ingest domain name cannot be resolved, resulting in stream push failure. Perform the following steps to check whether a CNAME record has been configured:

1. Log in to the **Live console**.

2. In the navigation pane, choose **Domains**.

3. In the domain name list, obtain the CNAME record for the ingest domain name.

Figure 3-2 Domains
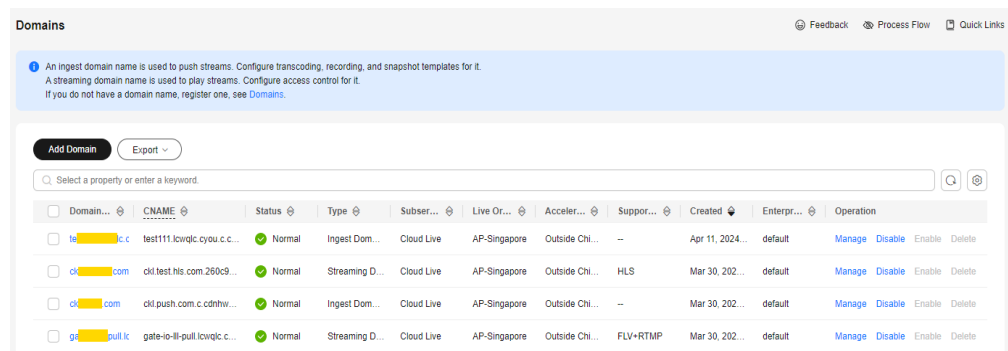
4. Start the **cmd** program in Windows, and use **nslookup** to query the domain name.

5. **Configure a CNAME record** for the ingest domain name if the allocated CNAME record is not displayed in the command output.

Checking Whether the Ingest URL Is Valid

If URL validation is enabled, you need to use a signed ingest URL. If not, use the original ingest URL.

Check whether the current ingest URL is valid based on the URL assembling rule. If the URL is invalid, create a valid one.

- Original ingest URL format:

  rtmp://*Ingest domain name*/*App Name*/*Stream Name*

  Assemble the ingest URL using the actual values of **App Name** and **Stream Name**.

  📖 **NOTE**

 Live supports only RTMP stream push, so the ingest URL must start with **rtmp**.

- For details, see **Streaming Authentication**.

Checking Whether the Ingest URL Is in Use

Perform the following steps:

1. Log in to the **Live console**.
2. In the navigation pane, choose **Streaming** > **Streams**.
3. Select the desired domain name from the drop-down list. If a livestream is displayed under the **Ongoing** tab, check whether its stream name is in use.

Figure 3-3 Viewing ongoing streams
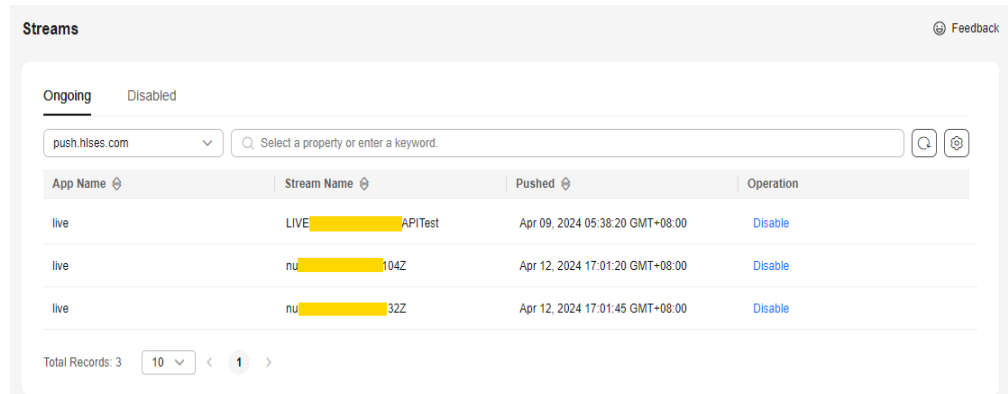
4. Click **Disable** in the **Operation** column to disable the livestream if your ingest URL is in use. Then use a new *Stream Name* to push livestreams.

Checking Whether the Livestream Has Been Disabled

Perform the following steps:

1. Log in to the **Live console**.
2. In the navigation pane, choose **Streaming** > **Streams**.
3. Select the desired domain name from the drop-down list.
4. Click the **Disabled** tab.
5. Click **Resume** in the **Operation** column if your livestream has been disabled.

Figure 3-4 Viewing disabled streams
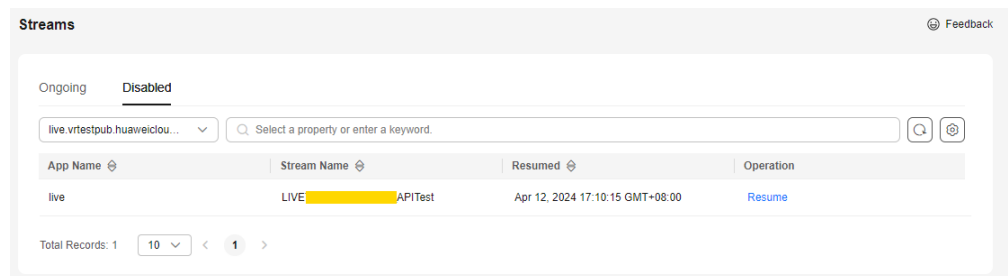
If the issue persists, you can **submit a service ticket** for technical support.

4 Live Video Playback Failed

Symptom

Live video playback failed.

Perform the following operations to locate the cause and rectify the fault:

- **Checking Whether the Streaming URL Is Valid**
- **Checking Whether the Streaming Domain Name Has Been Associated with the Ingest Domain Name**
- **Checking Whether the CNAME Record Has Taken Effect**
- **Checking the Playback End**

Checking Whether the Streaming URL Is Valid

If URL validation is enabled, you need to use a signed streaming URL. If not, use the original streaming URL.

Check whether the current streaming URL is valid based on the URL assembling rule. If the URL is invalid, create a valid one.

- You can play FLV, M3U8, and RTMP streams.

  RTMP format: rtmp://*Streaming domain name*/*App Name*/*Stream Name*
  FLV format: http://*Streaming domain name*/*App Name*/*Stream Name*.flv
  M3U8 format: http://*Streaming domain name*/*App Name*/*Stream Name*.m3u8

  Assemble the streaming URL using the actual values of **App Name** and **Stream Name**.

- For details, see **URL Validation**.

📖 **NOTE**

The values of **App Name** and **Stream Name** in the streaming URL must be the same as those in the ingest URL.

Checking Whether the Streaming Domain Name Has Been Associated with the Ingest Domain Name

The ingest domain name must be associated with the streaming domain name so that you can push streams and play live video. Perform the following steps to check whether the domain names have been associated:

1. Log in to the **Live console**.

2. In the navigation pane, choose **Domains**.

3. In the domain name list, click **Manage** in the **Operation** column of the desired streaming domain name.

4. If there is no ingest information in the **Ingest Info** area, click **Associate Ingest Domain** and select the desired ingest domain name.

Figure 4-1 Ingest info
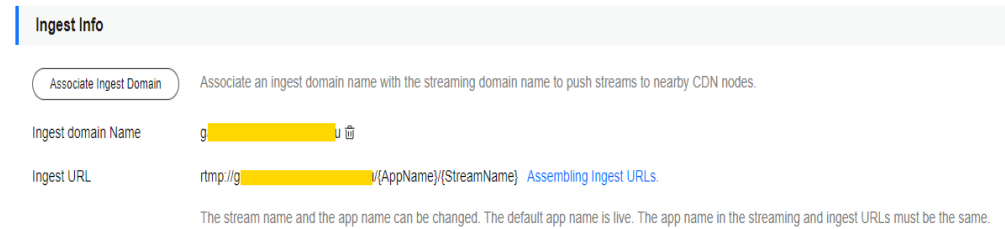
Checking Whether the CNAME Record Has Taken Effect

By default, downstream acceleration is enabled. If a CNAME record has not been configured for the streaming domain name, the streaming domain name cannot be resolved, resulting in playback failure. Perform the following steps to check whether a CNAME record has been configured:

1. Log in to the **Live console**.

2. In the navigation pane, choose **Domains**.

3. In the domain name list, obtain the CNAME record for the streaming domain name.

Figure 4-2 Domains
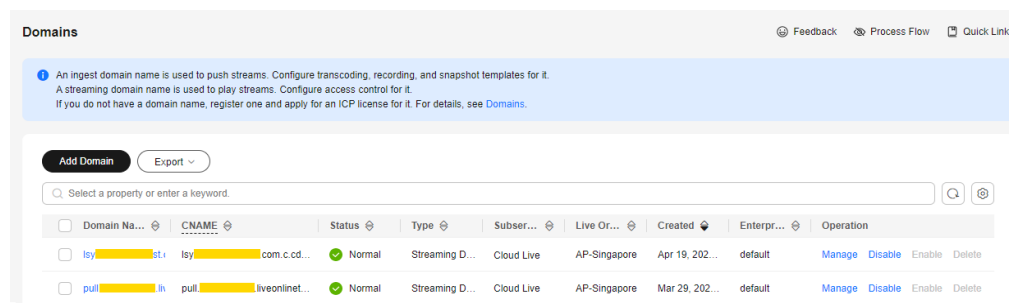
4. Start the **cmd** program in Windows, and use **nslookup** to query the domain name.

5. **Configure a CNAME record** for the streaming domain name if the allocated CNAME record is not displayed in the command output.

Checking the Playback End

1. Enter the streaming URL in a third-party player (VLC is recommended).

2. Check whether the player is faulty. You can use another mobile phone and PC to test.

3. Check whether the player supports the corresponding format.

Live supports the following streaming formats:

– Web player: M3U8 and FLV

– Mobile player: RTMP, FLV, and M3U8

4. Use a player that supports the desired format.

If the issue persists, you can **submit a service ticket** for technical support.

5 Live Video Freezing

Symptom

Live video freezes while being played. The entire livestreaming process involves the streaming end, playback end, and origin server in Live (CDN), as shown in **Figure 5-1**. All of them may lead to video freezing. Perform the following operations to locate the cause and rectify the fault:

Figure 5-1 Livestreaming process
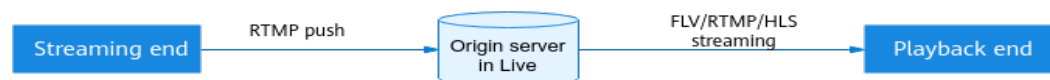
- **Checking the Streaming End**
- **Checking the Playback End**
- **Checking the Origin Server (CDN) in Live**

Checking the Streaming End

The possible cause is that freezing occurs during stream push due to factors such as the streaming device configurations, video parameter settings, and network environment. If freezing occurs on the streaming end, locate the cause from the following aspects:

- Device configurations

  Stream push will occupy a certain proportion of CPU resources. If a low-end device with poor hardware configurations is used and its overall CPU usage exceeds 80%, freezing and artifacts will occur, compromising video quality. You can change device configurations or use a higher version of streaming device to ensure device stability.

- Streaming SDK configurations

  If the bitrate, frame rate, and encoding level set on the encoder are too high, the encoding speed will be lowered due to hardware constraints. If you use an iOS streaming device, hard coding is recommended because iOS is highly compatible with hardware devices and is more power-saving. If you use an Android streaming device, hard coding is recommended for Android 4.3 or later, as there are too many models and CPU types.

- Video parameter settings

  To ensure smooth video playback, the frame rate is set to be greater than 15 frames per second (FPS). If the frame rate is lower than 10 FPS, noticeable freezing occurs. Therefore, a frame rate of 15–30 FPS is recommended. If the frame rate exceeds 30 FPS, human eyes cannot tell the difference and the bandwidth cost for video transmission will rise. A higher frame rate does not necessarily mean better video quality.

- Network bandwidth

  Perform an online bandwidth test on the network of the streaming device. The recommended upstream bandwidth is higher than 10 Mbit/s.

- System resource usage

  Check whether a large number of programs are running on the server. It yes, delete or stop these programs to release resources.

Checking the Playback End

- Most players have a receive buffer. A player decodes and plays the video after the buffer is full. The size of the receive buffer is also a factor of freezing during playback. You are advised to adjust the size of the receive buffer to avoid video freezing.

- If the player uses hard encoding in a poor network environment, drop frames and reduce audio bitrate to avoid video freezing.

- Perform an online bandwidth test. If the bandwidth of the player is insufficient or jitter occurs, video will freeze. Check whether there is ongoing download. Bandwidth-consuming operations such as download should be avoided during video playback.

- If you use the third-party tool Open Broadcaster Software (OBS) to push streams, perform the following steps to configure parameters:

  a. Choose **Output** and set **Output Mode** to **Advanced**.

  b. Set **Keyframe Interval (seconds, 0=auto)** to **2**.

Figure 5-2 OBS streaming delay settings
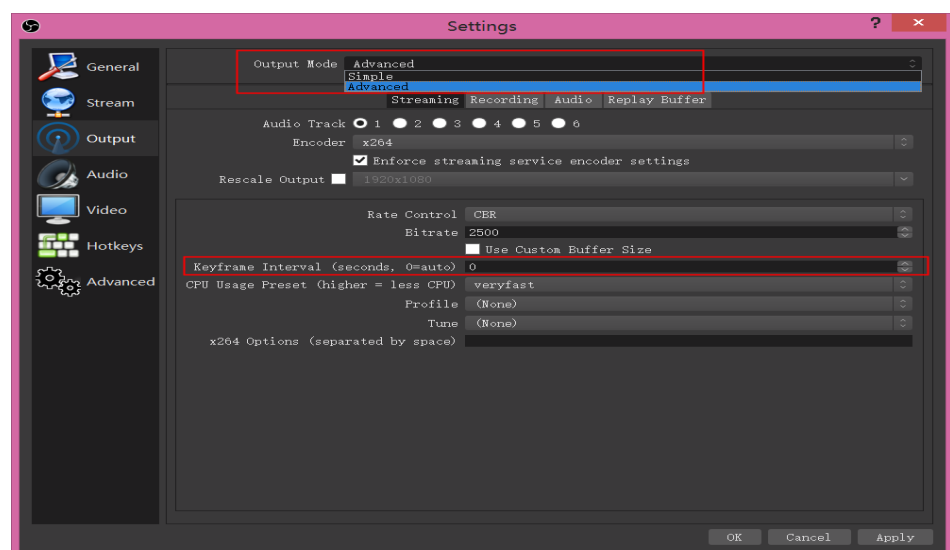
Checking the Origin Server (CDN) in Live

If no problems are found on the streaming end and playback end, check whether the **origin server and acceleration area** are correctly configured.

If no problems are found, **submit a service ticket** to check whether the origin server or CDN in Live is faulty.

Attach the following information to the service ticket:

- Time when the problem occurs
- Symptom, including the ingest URL, streaming URL, and URLs with failed or slow access
- Information about the faulty node and the returned result diagram of pinging the domain name
- User egress IP address and egress DNS, for example, **http://dns-detect-portal.n.cdnhwc5.cn/?domain=**_xx.xx.xx_, and the access screenshots