Cloud Streaming Services

FAQs

Product Documentation

Contents

FAQs

Service Region

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Which regions are supported by CSS domain name acceleration?

CSS has a global acceleration feature, and you can choose an appropriate acceleration region type based on the region of your business.

Playback Domain Name Acceleration Region Type	Available Region Type	Remarks
Chinese mainland	Chinese mainland	If "Chinese mainland" is selected as the acceleration region, bandwidth capping will be supported only in the Chinese mainland.
Hong Kong/Macao/Taiwan (China Region) and other regions	Hong Kong/Macao/Taiwan (China Region) and other regions	If "Hong Kong/Macao/Taiwan (China Region) and other regions" is selected as the acceleration region, bandwidth capping will be supported only in Hong Kong/Macao/Taiwan (China Region) and other regions.
Global acceleration	Chinese mainland; Hong Kong/Macao/Taiwan (China Region) and other regions	If "global acceleration" is selected as the acceleration region, you can set different bandwidth caps for the Chinese mainland and Hong Kong/Macao/Taiwan (China Region) and other regions separately. You can also set a bandwidth cap for global acceleration.

Live Streaming Basics

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What are push, live streaming, and video on demand?

Push: the process of hosts pushing local video and audio to Tencent Video Cloud servers. It is called "RTMP publishing" in some scenarios.

Live streaming: during live streaming, video streams are generated in real time. It works only if someone is pushing. A live streaming URL becomes invalid the moment the host stops pushing. As live streams are played back in real time, viewers cannot see a progress bar during live streaming.

Video on demand (VOD): VOD allows you to play files in the cloud. A file can be played at any time unless it is deleted by its provider (e.g., Tencent Video). Because videos are already stored in the server, viewers can see a progress bar during playback.

What are the requirements for a playback domain name in CSS?

The domain name can contain up to 45 characters and cannot contain uppercase letters. For more information, please see Adding Domain Name.

Can I use the same domain name for playback and push? Can I use second-level domain names?

You must use different domain names for playback and push, but you can use the same second-level domain to indicate that the stream is the same.

For example, you can use `123.abc.com` for push, and `456.abc.com` for playback.

What push protocols are supported?

The push streaming protocols supported by CSS include: RTMP, SRT, WebRTC, and RTMP over SRT.

RTMP protocol: RTMP is gradually being replaced by other low-latency protocols in the live streaming field, but it is the most common protocol used for stream pushing (pushing data from hosts to servers). Currently, domestic video cloud services use RTMP as their main push protocol, and the push streaming SDK (such as TXLivePusher) is also called RTMP SDK.

SRT protocol: TS over SRT directly transmits TS streams containing audio/video data using SRT protocol, The existing live streaming system is used for playback. TS over SRT is used as the standard push format for Haivision hardware and OBS.

WebRTC protocol: The TXLivePusher SDK is used to push streams for CSS. It can push audio/video the browser captures from the camera, screen sharing, or a local file to live streaming servers via WebRTC. Concurrently, it allows for local stream mixing of the collected content before pushing it to the backend server. You can use the WebRTC protocol for live streaming on the web. On the PC side, you can also use the OBS tool for WebRTC live streaming. For

more information, please refer to the OBS WebRTC live streaming. The advantage of using Web for WebRTC live streaming is that there is no need to install additional software, and you can operate directly in the browser.

RTMP over SRT: The transport layer replaces TCP with SRT. Through SRT's low latency and high resistance to packet loss, it greatly reduces the impact of RTMP on transmission quality when the network is poor and fluctuates, improving the overall live broadcast viewing experience.

What playback protocols are supported?

Common live streaming protocols include RTMP, HTTP-FLV, HLS and WebRTC.

RTMP can be used for both live push and live playback. It works by splitting long video and audio chunks into short fragments and transporting them as small data packets over the internet. RTMP supports encryption and therefore ensures privacy. However, the complicated splitting and splicing processes add uncertainty to the stability of data transmission in high concurrency scenarios.

HTTP-FLV is developed by Adobe Systems and is a rather simple video format. It works by adding a header to large video and audio data chunks. This simplicity makes it superb in delay control and high-concurrency performance. The only drawback is that HTTP-FLV is poorly supported on mobile browsers, but it is an ideal option for mobile apps.

HLS is released by Apple. It splits video streams into segments of 5-10s and manages them using M3U8 playlists. The protocol ensures smooth playback as clients download data chunks of 5-10s. However, it comes with high latency of about 10-30s. Unlike HTTP-FLV, HLS is well supported on iPhone and most Android browsers and is therefore often used for URL sharing on QQ and WeChat Moments.

WebRTC is short for Web Real-Time Communication. It is an API that allows real-time audio/video calls on web browsers. Supported by Google, Mozilla, and Opera, WebRTC specifications were published by the World Wide Web Consortium (W3C) on June 1, 2011. WebRTC is adopted by LEB, which is an ultra-low-latency version of LVB and offers streaming with millisecond latency. It is suitable for scenarios with high requirements on latency, such as online education, sports streaming, and online quizzes.

Protocol	Pro	Con	Playback Latency
HTTP-FLV	Mature, suited for high-concurrency scenarios	SDK integration is required.	2-3s
RTMP	Relatively low latency	Poor performance in high-concurrency scenarios	1-3s
HLS (M3U8)	Well supported on mobile browsers	High latency	10-30s
WebRTC	Lowest latency	SDK integration is required.	< 1s

What is the format of a playback URL?

A Tencent Cloud playback URL consists of a playback protocol prefix, domain name (`domain`), application name (`AppName`), stream name (`StreamName`), playback protocol suffix, authentication key, and other custom parameters. Below are examples:
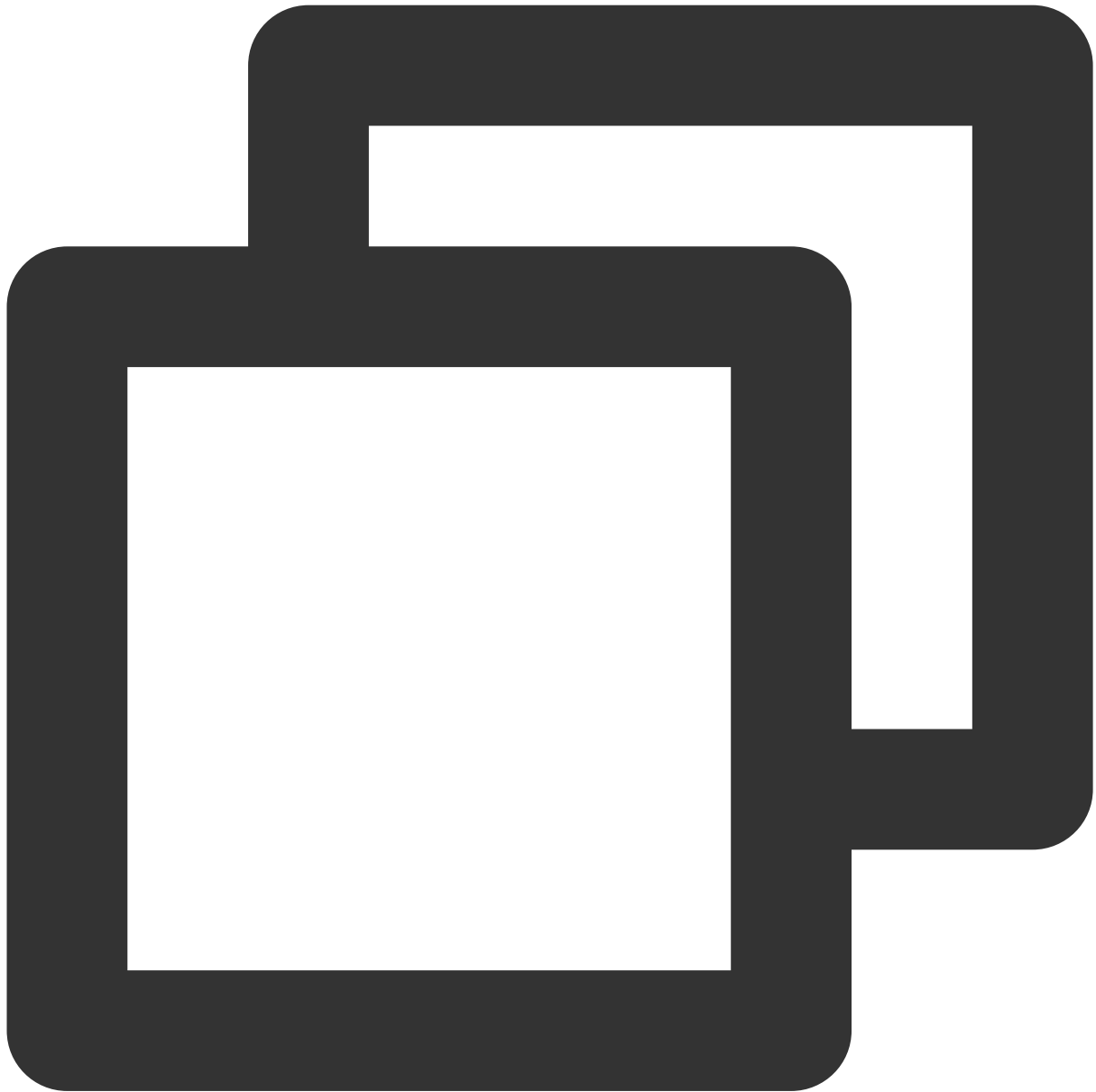

```
rtmp://domain/AppName/StreamName?txSecret=Md5(key+StreamName+hex(time))&txTime=hex(
http://domain/AppName/StreamName.m3u8?txSecret=Md5(key+StreamName+hex(time))&txTime
http://domain/AppName/StreamName.flv?txSecret=Md5(key+StreamName+hex(time))&txTime=
https://domain/AppName/StreamName.m3u8?txSecret=Md5(key+StreamName+hex(time))&txTim
https://domain/AppName/StreamName.flv?txSecret=Md5(key+StreamName+hex(time))&txTime
webrtc://domain/AppName/StreamName?txSecret=Md5(key+StreamName+hex(time))&txTime=he
```

Prefix

RTMP: **rtmp://**

HTTP-FLV: **http://** or **https://**

HLS: **http://** or **https://**

WebRTC: **webrtc://**

Application name (`AppName` **)**

Application name specifies the storage path of a live streaming file. It is **live** by default.

stream name (`StreamName` **)**

Stream name (`StreamName`) uniquely identifies a live stream.

Authentication key and other custom parameters

Authentication key: **txSecret=Md5(key+StreamName+hex(time))&txTime=hex(time)**.

What are the common push methods?

Camera on Android/iOS devices: use third-party software or the MLVB SDK to capture camera video and push the video stream to your push URL.

Camera or screen recorder on PCs: use third-party software to capture camera video or record the screen and then push the data to your push URL. Such third-party software includes OBS (recommended), XSplit, FMLE, etc.

Video capturing device: connect an HD camcorder with HDMI or SDI output to an encoder and push RTMP streams to live streaming applications. You need to set the RTMP publishing address of the encoder to your push URL.

If you use a webcam that supports RTMP, you can also set the RTMP publishing address of the webcam to your push URL.

Converting video files to video streams: read video files and push them as RTMP streams to your RTMP push URL. This can be achieved using the `FFmpeg` command, which works on Windows, Linux, and macOS.

What are the differences between stream interruption and stream disabling?

Stream interruption: if a live stream is interrupted, the push will stop, and viewers will be unable to watch the stream. However, the host can start the push again to resume the live streaming.

Stream disabling: if a live stream is disabled, the push will stop, and viewers will be unable to watch the stream. The host cannot start the push again. You can disable a stream on the stream management page of the CSS console. Disabled streams can be found in the list of disabled streams. You can click **Enable** to enable a disabled stream.

Can I enable text chat for live streaming?

Yes. You can use the Instant Messaging (IM) component to realize text chat for live streaming. In addition, IM provides on-screen comments, likes, gifts, repeat notifications and other interactive features. You can also use the room management feature to realize co-anchoring, manage user identities and the permission to mute members, among others.

Is CSS a software?

No. CSS provides APIs for you to develop live streaming applications.

How do I get the number of live streaming viewers?

You can call the CSS v3.0 API DescribeStreamPlayInfoList to get the number of online viewers.

What streaming protocols are supported for interconversion and relay access?

Interconversion and relay access are supported for common streaming protocols such as RTP, SRT, RTMP, and UDP.

Push and Playback

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Is there an upper limit on the number of concurrent viewers?

By default, CSS does not limit the number of online viewers for a live stream as long as the network and other conditions permit. However, if you have configured a bandwidth limit, new viewers cannot watch the live stream if there are so many existing viewers that the bandwidth limit is exceeded. In this case, the number of online viewers is limited.

How do I use the live transcoding feature?

You can go to Live Transcoding to configure transcoding templates with different bitrates and resolutions for different network conditions. For more information on transcoding, see Live Remuxing and Transcoding.

Original definition, HD, and SD

The three commonly used playback bitrates for original, HD, and SD streams are as follows:
For original, the playback bitrate is the same as the bitrate used for push.
For HD, the recommended playback bitrate and resolution are 2,000 Kbps and 1080p.
For SD, the recommended bitrate and resolution are 1,000 Kbps and 720p.

How do I use time shifting?

You can use the time shifting feature to rewind and play a video stream from earlier time points. The feature currently only supports the HLS protocol. For more information on time shifting and how to activate it, see Time Shifting.

How can I use HTTPS for playback?

To make your playback domain support HTTPS, make sure you have a valid certificate and private key, go to Domain Management, find the target playback domain, click **Manage**, and select **Advanced Configuration** > **HTTPS Configuration** to add an HTTPS configuration. The configuration takes effect in about 2 hours.

How can I use a cache node outside the Chinese mainland for playback?

CSS provides stable CDN nodes across the Chinese mainland and around the world. If your end users are located outside the Chinese mainland, you can select **Global** or **Outside Chinese mainland** for **Acceleration region** when adding domains in Domain Management.

How can I enable hotlink protection?

To prevent potential losses caused by unauthorized users using your URLs for playback and stealing your Tencent Cloud traffic, we strongly recommend you enable hotlink protection for your playback URLs. Hotlink protection is determined by four parameters: `txTime` , `key` (hash key), `txSecret` , and the validity period.

Hotlink Protection Parameter	Description	Remarks
txTime	The expiration time of the playback URL.	It must be a Unix hexadecimal timestamp. Playback is allowed only if `txTime` is later than when a request is sent.
key	The MD5 key.	This parameter is customizable. You can set a primary and a backup key. If your primary key is disclosed, you can use the backup key to splice playback URLs while changing the primary key.
txSecret	The encryption parameter in the playback URL.	The value of this parameter is calculated based on `key`, `StreamName`, and `txTime` using the MD5 algorithm. `txSecret` = MD5 (key+StreamName+txTime)
Validity period	The authentication validity period.	It must be greater than 0. If you set `txTime` to the current time and the validity period to 300s, the URL expiration time is the current time plus 300s.

Hotlink protection URL calculation

Three parameters are needed to generate a hotlink protection URL: `key` (a random string), `StreamName` (the stream name), and `txTime` (in hexadecimal format).

Assume that you set `key` to **somestring**, `StreamName` to **test**, `txTime` to **5c2acacc** (2019-01-01 10:05:00), the HD bitrate to **900 Kbps**, and the name of the transcoding template to **900**.

The playback URL of the original stream is:
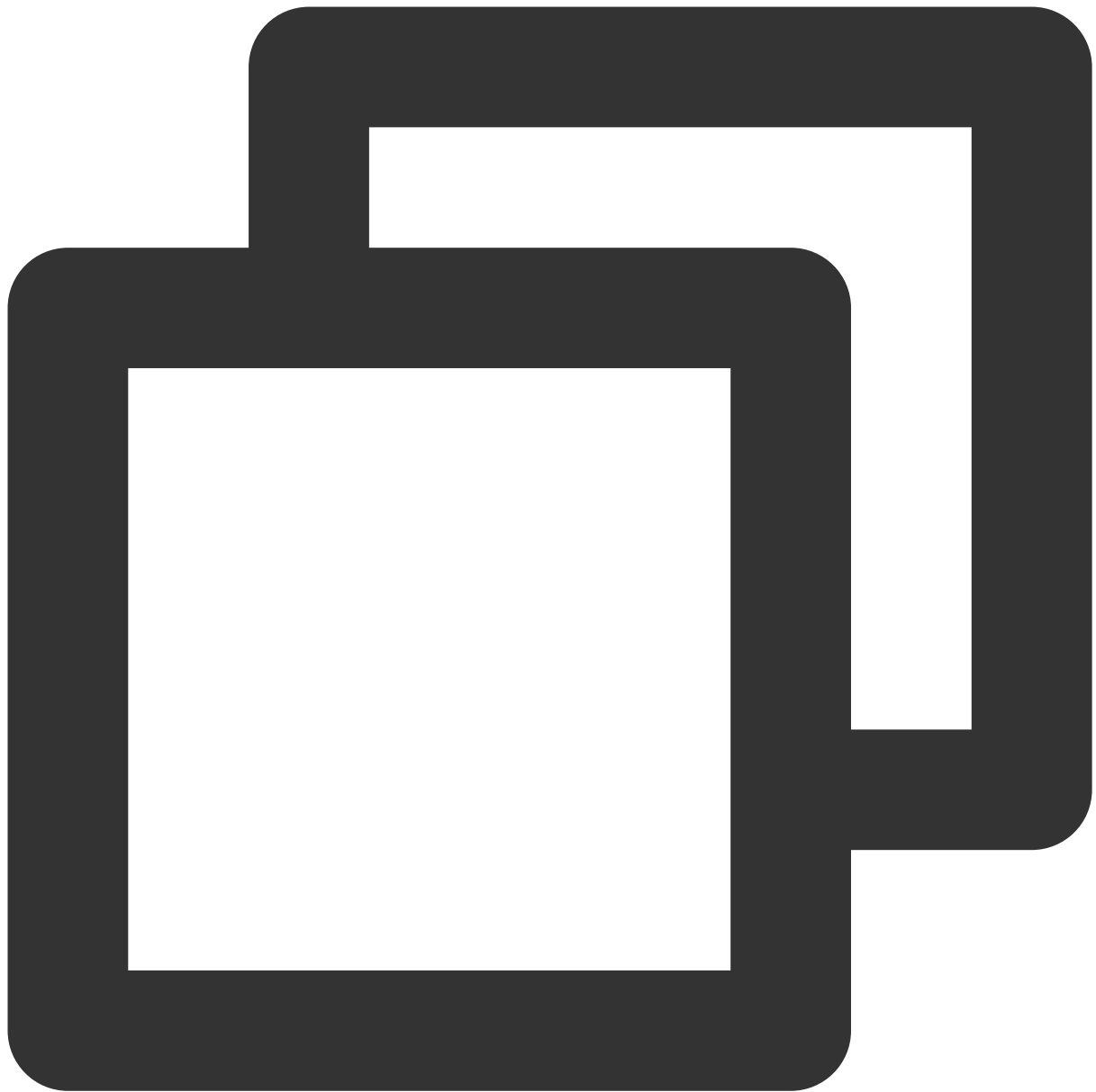
```
txSecret = MD5(somestringtest5c2acacc) = b77e812107e1d8b8f247885a46e1bd34
http://domain/live/test.flv?txTime=5c2acacc&txSecret=b77e812107e1d8b8f247885a46e1bd
http://domain/live/test.m3u8?txTime=5c2acacc&txSecret=b77e812107e1d8b8f247885a46e1b
```

The playback URL of the HD stream is:
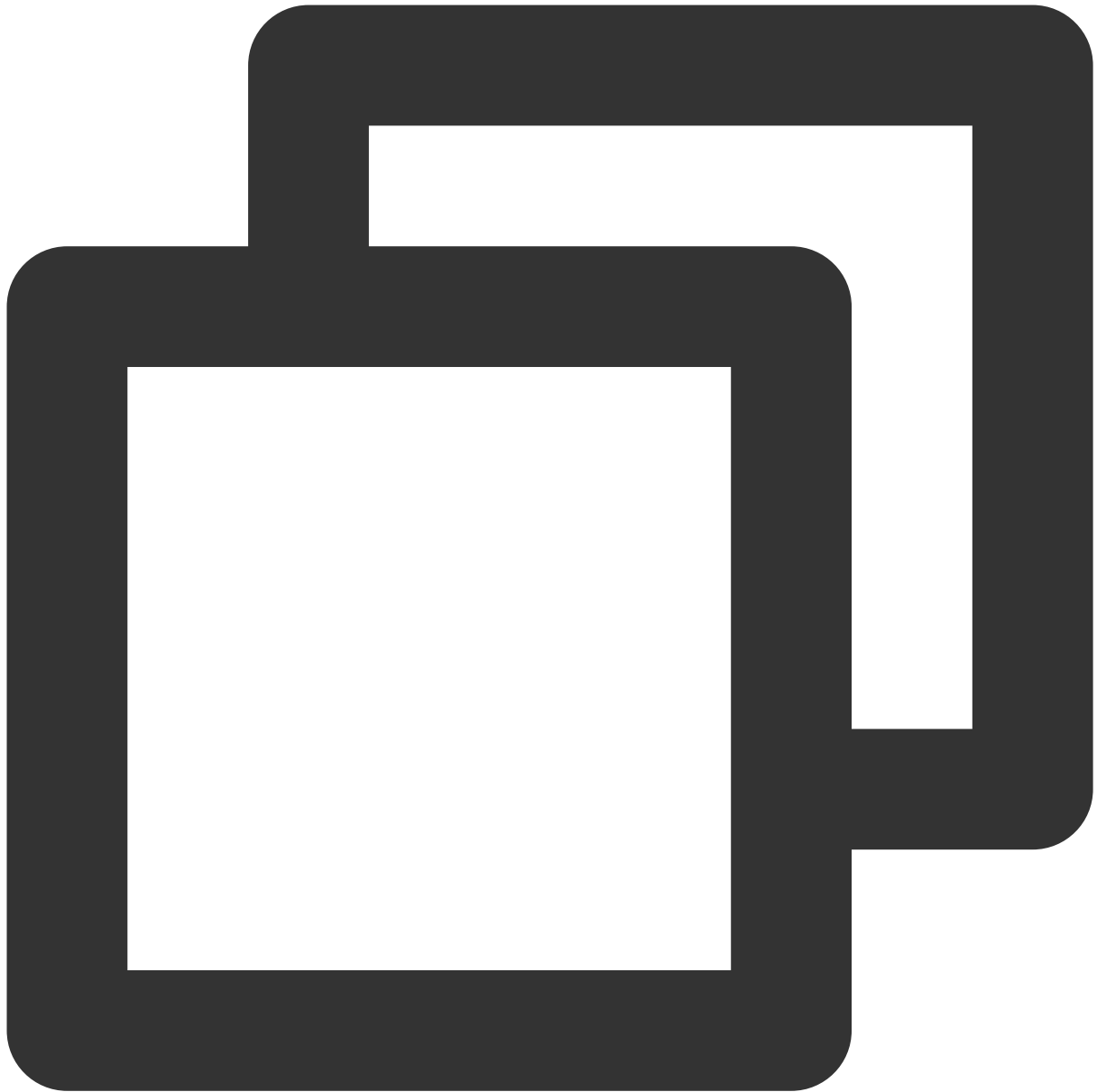
```
txSecret = MD5(somestringtest_9005c2acacc) = 4beae959b16c77da6a65c7edda1dfefe
http://domain/live/test_900.flv?txTime=5c2acacc&txSecret=4beae959b16c77da6a65c7edda
http://domain/live/test_900.m3u8?txTime=5c2acacc&txSecret=4beae959b16c77da6a65c7edd
```

Enabling hotlink protection

1. Select Domain Management, and click the target playback domain name or click **Manage** on the right to enter the domain management page.

2. Select the **Access Control** tab. In the **Key Authentication** area, toggle on **Playback Authentication**.

3. Complete the settings in the pop-up window.

4. Click **Save** to save the configuration.

Caution

It takes **30 minutes** for the configuration to take effect.

HTTP-FLV: Ongoing playback can continue even after `txTime` , but new playback requests will be rejected.

HLS: With HLS, a stream is broken into short chunks, and TS segments are requested as playback continues.
Therefore, if you set `txTime` to 10 minutes after the current time, playback will be rejected after 10 minutes. To
avoid this, you can update the HLS request URL dynamically on the server or set a longer validity period.

What are the format requirements for a primary key for playback authentication? Is there any limit on its validity period?

The primary key can contain only letters and digits, with up to 256 characters. For details, please see Playback
Authentication Configuration.
We recommend that you set its validity period to the duration of a live streaming session.

Can I generate a push URL that is valid for a long time? What is the upper limit of the validity period?

If you set the validity period too long, others may use your URL for push without your authorization.
There is no limit on the validity period of a push address. You can have your server automatically splice push URLs to
generate URLs with longer validity periods. For detailed directions, see Splicing Live Streaming URLs.
Note
 We do not recommend you set a very long validity period. It may cause errors and authentication failures.

Will the Tencent Cloud logo be displayed on the live streaming image?

No.

How long is the latency in live streaming?

Normally, the latency of playing an FLV stream that is pushed over RTMP is around 2-3 seconds. If your playback
latency is exceptionally high, please refer to Troubleshooting High Latency to troubleshoot the issue.

Can I modify the maximum bitrate during live streaming?

 No. You can set it only before pushing a stream. The bitrate depends on your upload speed. Setting it too high may
cause dropped frames and stuttering.

How do I delete a live streaming room which is no longer used?

Live push and playback are bound with stream IDs, so you do not need to delete rooms. If you are using the IM service
and want to delete IM rooms to avoid reaching the maximum number of rooms, see Disbanding a Group.
If you are using channel mode, you can call the `DeleteLVBChannel` API to delete channels (you need to pass in
the IDs of the channels you want to delete).

Caution

Channel mode is a legacy mode which is no longer updated or maintained.

When do I use the push enabling/disabling API?

You can use the API to disable a live stream when pornographic or other inappropriate content is detected. For details, see ForbidLiveStream.

How do I implement playback in the background?

Background playback allows the audio of a live stream to continue even when your app runs in the background. This feature depends on the playback device and should be implemented based on your actual business logic.

What should I do if the "incorrect certificate" error occurs when I modify my HTTPS configuration?

CSS uses Nginx for encryption, so make sure your certificate type is Nginx.

Why do my playback URLs stop working after I disable playback authentication?

An authentication-enabled playback URL will become invalid after authentication is disabled, even if the validity period has not elapsed.

What are API rate limits?

CSS sets an upper limit on the total number of requests sent by all `SecretId` under an account. After the limit is reached, new requests will not be responded to.

For example, an upper limit of 200 requests per second indicates that the Tencent Cloud server can receive up to 200 requests sent by all `SecretId` under your account within one second. It doesn't matter whether the requests are sent by one or more users, or whether they query one or multiple streams.

The "RTMP close" error occurs when I push streams, but the log says the push is successful. What should I do?

The problem may lie in your push URL. You can use our TCToolkit app to test whether the URL works normally. For more solutions, see Troubleshooting Push Failure.

I failed to push streams after changing the frame rate, had to restart the service multiple times, and was frequently disconnected. What should I do?

You may have set the frame rate too high. A frame rate higher than 15 fps is enough to ensure smooth playback. Try reducing the frame rate.

If a stream has no data for a long time, when will it be disconnected?

A stream may have no data for a long time when there is a push problem, for example, if the app crashes or the phone is turned off.

In such cases, if the backend doesn't receive any data for 70 seconds, it will disconnect the stream.

How do I configure an API key in the new console?

API keys are used for the authentication of legacy APIs. We have updated our APIs to v3.0. To use the new APIs, go to Manage API Key to get the `SecretId` and `Secretkey` .

Why can't I play a H.265-encoded video?

H.265 is supported by fewer browsers than H.264, and playback may fail if your browser does not support H.265. You can configure a transcoding template to transcode the video to H.264.

Can the names of M3U8 files contain Chinese characters?

M3U8 files are named automatically based on stream names. Stream names **do not support** Chinese characters.

How do I view the number of online viewers?

You can get the number of online viewers by calling the DescribeStreamPlayInfoList API, but the result may not be 100% accurate. For example, if three users use the same IP address for playback at the same time, they will be counted as one viewer. Note that the data returned by this API is relevant only if your playback protocol is RTMP or FLV, not if it is HLS.

Does CSS support backup streams?

Backup streams are enabled by default with CSS. If you push two streams using the same stream name at the same time, during playback, only the first stream will be visible. If this stream is interrupted, the second stream will become visible.

Can I add different watermarks for the same push domain?

No, you can't. You can bind only one watermark template to each push domain.

How do I view users' playback durations?

You cannot view users' playback durations currently.

Can users watch my live streams if I don't transcode the streams?

Yes. Playback is based on playback URLs and is possible even if you don't transcode the streams (as long as the URL is valid).

What factors affect the time to the first frame?

The time to the first frame depends mainly on the number of viewers. The more viewers, the higher the cache hit ratio and the shorter the time to the first frame.

Can I create a blocklist/allowlist for playback?

You can configure a custom IP allowlist or blocklist to control access to your live streams based on IP addresses. For detailed directions, see Configuring IP Allowlist/Blocklist.

IP allowlist: Only IP addresses on the list can access your streaming content.

IP blocklist: IP addresses on the list cannot access your streaming content.

How many screenshots are taken for porn detection?

CSS identifies pornographic content based on screenshots. The number of screenshots taken for porn detection depends on the screenshot interval, which you can set in Live Screencapture & Porn Detection of the CSS console.

Note

 The default screenshot interval during push is two seconds. Value range: 2-300 (seconds).

How do I query my billable bandwidth and traffic?

You can use the DescribeBillBandwidthAndFluxList API to query the data.

How do I know if push is successful?

If push is successful, the stream generated will appear in Stream Management > **Live Streams** of the CSS console. You can also call the DescribeLiveStreamState API to query stream status.

Note

 When push or playback fails, you can use the self-diagnosis tool of the CSS console to troubleshoot the issue. For details, see Self-Diagnosis.

Can I push audio-only streams?

CSS supports pushing audio-only streams (streaming software is required). You can also create audio-only transcoding templates.

Pushing audio-only streams with OBS.

Creating a transcoding template

How do I query live streaming durations?

You can call an RESTful API to query the data. For details, see DescribeStreamPlayInfoList.

How do I query the duration of an active stream?

CSS does not offer an API to query the duration of an active stream. You can calculate the duration based on the callbacks for push and stream interruption.

How do I query the viewers of a live stream?

You can query the viewers of a live stream using either of two methods:

Go to the CSS console, select **Data Center** > **Stream Data Query** on the left sidebar, and click **Playback Data** to view the number of concurrent connections.

Note

The number of concurrent connections equals the number of online viewers only if the playback protocol is RTMP or FLV.

Call the DescribeStreamPlayInfoList API to get the number of online viewers.

If I'm disconnected after pushing a stream, will I receive the callback for stream interruption?

You need to configure the callback for stream interruption first. If a stream is interrupted by a network disconnection, the system will try to resume the stream automatically. If the stream is resumed within 70 seconds, you will not receive the callback for stream interruption. If the system fails to resume the stream within 70 seconds, it will disconnect the stream, and you will receive the stream interruption callback.

Do I need to use the same protocol for push and playback?

No. You can use RTMP for push and RTMP, FLV, HLS, or UDP for playback.

Why can't I play videos from CDNs when I use a wireless network?

Check the following:

Check whether your wireless network has blocked Tencent Cloud's IP addresses.

If you use iPhone, make sure you have allowed the app to use Wi-Fi.

If the above does not solve your problem, please contact Tencent Cloud technical support.

I configured HTTPS for my playback domain, so why did playback fail?

Check the following:

Make sure you have uploaded a certificate.

Check your certificate upload time. After configuring HTTPS, please wait about two hours before accessing the domain.

Note

If the above does not solve your problem, try using the self-diagnosis tool of the CSS console to identify the issue. For detailed directions, see Self-Diagnosis.

With LEB, how do I change the resolution of hosts during live streaming?

LEB is a playback solution, while hosts are at the push end. To change the resolution of hosts, you need to create a transcoding template and bind it to your domain before playback.

CSS Billing

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CSS Billing

What are the billable items of CSS? How do I figure out what fees I need to pay for?

CSS billable items include basic services and value-added services. Extended service fees will be incurred when value-added features provided jointly by CSS and other Tencent Cloud services are used.

Basic service fees: billed by downstream traffic/bandwidth generated by connecting users to cache origin servers. In other words, traffic/bandwidth fees will be incurred as long as your live streaming content is watched by viewers.

Note:

CSS provides two billing modes you can choose from: bill-by-traffic and bill-by-bandwidth. For detailed pricing, see "Bill-by-Traffic/Bandwidth" in Billing Overview. To switch billing modes, see Changing Billing Modes.

Value-added service fees: such services include transcoding, recording, screencapture, and porn detection, which are all disabled by default. If you enable and use them, fees will be incurred. For detailed pricing, see "Value-Added Service Fees" in CSS Pricing Overview.

Extended service fees: value-added services provided jointly by CSS and other Tencent Cloud services and charged according to the billing rules of the corresponding services. Using such services will incur extended service fees. For detailed pricing, see "Extended Service Fees" in CSS Pricing Overview.

How can I know whether my account has overdue payments?

You can log in to the CSS console and click **Fees** at the top right to enter the fees overview page. If your available balance is below 0 USD, your account has overdue payment. To continue using CSS and other services, you need to pay the overdue balance in time.

Will I be charged for upstream push?

By default, fees are billed by downstream usage. However, upstream usage will also be billed when the ratio of upstream usage and downstream usage is larger than 1:10, and the daily upstream peak bandwidth exceeds 100 Mbps.

Upstream usage will be billed according to the same billing modes and tiered pricing rules as downstream usage. Billing rules for upstream usage have been applied since 00:00 (UTC+08:00), July 1, 2021.

When will value-added service fees start to be billed?

After you enable recording, screencapture, porn detection, watermarking, and other value-added services that are bound with push domain names, fees will be incurred when push starts. After you enable transcoding and other value-added services that are bound with playback domain names, fees will be incurred when playback starts. If you created

a transcoding template and bound it with a playback domain name, transcoding fees will not be incurred if there is no playback. Enabling watermarking or stream mix may incur standard transcoding fees, which will be billed by the resolution of the output live streams.

In Live Video Caster PGM output, what is the playlist type? What is the universal type?

Playlist type: It means that the PGM output screen comprises only one stream, charged according to the playlist type. Universal type: It means that the PGM output screen comprises two or more streams, charged according to the universal type.

The figure on the left is the playlist type, and the figure on the right is the universal type:

Are there two expenses for porn detection?

Because CSS analyzes screenshots of live streams to detect pornographic content, using the porn detection feature will incur two expenses: **screencapture** and **porn detection**. Porn detection fees are based on the number of screenshots analyzed.
CSS offers a free tier of 1,000 screenshots per month for the screencapture feature.
CSS offers a free tier of 1,000 screenshots per month for porn detection.
For details, see Live Screencapture and Intelligent Porn Detection.

Can I track my usage of CSS packages in real time?

You can view your package usage in the CSS console, but real-time usage statistics are not supported currently. Your usage each day is not reflected in the data until billing is processed by the system the following day (the exact time may vary).

Can I allow only paid users to access my content?

CSS cannot identify paid users currently. If you record your live streams and save them to VOD, you can allow only paid users to access your content by encrypting the videos.

Why is the traffic usage data shown in the console different from the log data?

The downstream traffic recorded in logs is application layer data. The actual traffic consumed is 5-15% more than application layer data.

TCP/IP headers: Each TCP/IP HTTP request packet can be up to 1,500 bytes, including 40-byte TCP and IP headers. The traffic consumed by headers (about 3% of the total) is not counted into application layer data.

TCP retransmission: About 3-10% of packets are lost during transmission. The packets will be sent again by the server. Such traffic (about 3-7% of the total) is not counted by the application layer either.

As an industry standard, billable traffic is application-layer traffic plus the additional traffic described above. Tencent Cloud calculates the additional traffic as 10% of the total, so the traffic usage shown in the console is 110% of that recorded in logs.

Prepaid Packages

I purchased traffic packages. Why were fees still deducted from my account balance?

Traffic packages can only deduct your traffic usage in the daily bill-by-traffic mode.

If you are on daily bill-by-bandwidth mode, your traffic packages cannot be used for deduction. You can change your billing mode in the console. For details, see Changing Billing Modes.

If you are on daily bill-by-traffic mode and fees are still deducted from your account balance, check if you have used value-added services such as live transcoding, live recording, screencapture, and porn detection. Value-added services are billed based on usage. Your usage each day is billed the following day. You can also buy packages for value-added services. CSS offers three types of packages: traffic package, standard transcoding package, and Top Speed Codec (TSC) transcoding package. To learn more, see Prepaid Packages.

Fees are also incurred after you use up your packages. You can view the deduction details in Bill Details. For detailed directions, see Viewing Bills.

I only bought traffic packages. Will CSS suspend services for my account after I use up the packages?

No. Traffic packages are paid in advance, and usage is deducted from purchased packages.

If your billing mode for LVB is daily bill-by-traffic, downstream LVB traffic will be deducted from your traffic packages first, and the additional usage will be billed daily at tiered pay-as-you-go rates.

After you use up your packages, make sure there is sufficient balance in your account to pay your daily pay-as-you-go charges. If you have overdue payments, please top up within 24 hours. Otherwise, services will be suspended for your account. We recommend you check your account balance regularly.

Note

Traffic packages cannot be used for deduction if you are on monthly bill-by-traffic mode or monthly/daily bill-by-bandwidth mode.

What specific services result in charges labeled as value-added features in the bill?

Go to **Billing Center** > **Bill Details** > Bill by Instance to view.

On the bill, charges for value-added features are shown as follows:

You can distinguish between different services using the English Name suffix after the resource alias/ID, as different services have different coefficients:

Name	Value-added Feature	Ratio (Billing Duration (Unit: Billing Unit): Actual Duration (Unit: Minutes))
RealtimeSubtitles	Director's console real-time subtitling	1 :1
PullPushLocalMode	Relay to local pattern	0.02 :1
LiveDelay	Delayed playback	0.05 :1
StandbyStreams	Standby streams	1.6 :1

Why are there still traffic charges after Cloud Streaming Services are shut down?

Disabling the machine is unlike stopping the live stream; the camera is still collecting. It is recommended to check if there are any active streams in Console Stream Management later, where you can perform stream termination/disable operations.

Transcoding Billing

How is live transcoding billed? How can I estimate the transcoding fees?

Live transcoding is billed by the transcoding codec, resolution, and corresponding duration. As stream mix and watermarking are processed in the transcoding module, using such features will also incur transcoding fees. For details, see Live Transcoding Billing.

Transcoding fees will only be charged once if the same live stream is watched by multiple viewers at the same bitrate.

Example: suppose you used live transcoding and live watermarking on January 1, 2021, where live stream A was transcoded to `H.264_720P` for 1 hour and live stream B was watermarked at 480p for 30 minutes.

Then, the transcoding fees you would need to pay on January 2, 2021 would be 0.0057 (USD/min) × 60 (min) + 0.0028 (USD/min) × 30 (min) = 0.426 USD.

Why was a transcoding bill generated when I didn't use live transcoding?

Live
 transcoding services include live real-time transcoding, stream mix, and watermarking. Using stream mix or watermarking will also incur transcoding fees.

Will live stream mix definitely incur transcoding fees?

Yes. The transcoding fees will be billed according to the output stream after stream mix. As the transcoding resources will be consumed after stream mix is successful, the stream mix duration will be used for billing, regardless of whether the stream is played back. This is different from common transcoding, which is billed by playback duration.

Confused by the transcoding bill? Why are there two units of minutes? How do you know which bitrate the bill corresponds to?

Transcoding service charges are distinguished by designated pricing strategies for different encoding methods and resolutions. The component unit price (USD/minute/minute) can be interpreted as the transcoding resolution, meaning (USD/resolution/minute). Different transcoding price ranges are differentiated by passing different component volumes, so the component volume in the bill should correspond to the resolution rather than the actual transcoding duration, which is included in the bill's usage duration. You can check the encoding method and resolution corresponding to the transcoding bill in the following two ways:

Resource ID query: The resource ID on the bill will indicate the encoding method and resolution corresponding to that bill.

To determine the transcoding method and resolution associated with a bill, you can check the component unit price value in the bill. The specific correspondences are as follows:

The Component Unit Price in the Bill	Transcoding Type	Corresponding Transcoding Method and Resolution
USD/1 minute/minute	Standard transcoding (liveprocessor)	H264_480P
USD/2		H264_720P

minutes/minute		
USD/3 minutes/minute		H264_1080P
USD/4 minutes/minute		H264_2K
USD/5 minutes/minute		H264_4K
USD/6 minutes/minute		H265_480P
USD/7 minutes/minute		H265_720P
USD/8 minutes/minute		H265_1080P
USD/9 minutes/minute		H265_2K
USD/10 minutes/minute		H265_4K
USD/46 minutes/minute		H265_8K
USD/21 minutes/minute		AV1_480P
USD/22 minutes/minute		AV1_720P
USD/23 minutes/minute		AV1_1080P
USD/24 minutes/minute		AV1_2K
USD/25 minutes/minute		AV1_4K
USD/47 minutes/minute		AV1_8K
USD/11	Top speed codec transcoding	H264_480P

minutes/minute	(topspeed)	
USD/12 minutes/minute		H264_720P
USD/13 minutes/minute		H264_1080P
USD/14 minutes/minute		H264_2K
USD/15 minutes/minute		H264_4K
USD/16 minutes/minute		H265_480P
USD/17 minutes/minute		H265_720P
USD/18 minutes/minute		H265_1080P
USD/19 minutes/minute		H265_2K
USD/20 minutes/minute		H265_4K
USD/48 minutes/minute		H265_8K
USD/26 minutes/minute		AV1_480P
USD/27 minutes/minute		AV1_720P
USD/28 minutes/minute		AV1_1080P
USD/29 minutes/minute		AV1_2K
USD/30 minutes/minute		AV1_4K
USD/49		AV1_8K

minutes/minute		
USD/31 minutes/minute	Top Speed Codec Enhanced Transcoding (enhancement)	H264_480P
USD/32 minutes/minute		H264_720P
USD/33 minutes/minute		H264_1080P
USD/34 minutes/minute		H264_2K
USD/35 minutes/minute		H264_4K
USD/36 minutes/minute		H265_480P
USD/37 minutes/minute		H265_720P
USD/38 minutes/minute		H265_1080P
USD/39 minutes/minute		H265_2K
USD/40 minutes/minute		H265_4K
USD/50 minutes/minute		H265_8K
USD/41 minutes/minute		AV1_480P
USD/42 minutes/minute		H264_720P
USD/43 minutes/minute		AV1_1080P
USD/44 minutes/minute		AV1_2K
USD/45		AV1_4K

minutes/minute		
USD/51 minutes/minute		AV1_8K

Live Recording Billing

How is live recording billed?

The
billing for the live recording feature is based on the peak concurrent recording value for the month. If the recording is stored in COS, charges will also be applied for the total duration of the recording delivered to COS. Each live recording is considered as one recording channel; if you record in two formats (MP4 and HLS) and the recording lasts for one hour, it will be counted as two recording channels, and the total duration of the recording delivered to COS will be counted as two hours.

How is the live recording channel peak calculated?

When one live stream (one stream ID) is recorded in one file format, it will be counted as one live recording channel. The number of current recording channels will be queried once every 5 minutes, and the maximum value of sample points in the current month will be used as the monthly recording channel peak for billing.

Example:

Stream ID	Recording Format	Current Month			
		Day 1	Day 2	Day 3	...
A	HLS				
	MP4				
	FLV				
	AAC				
B	HLS				
	MP4				
	FLV				No recording tasks
	AAC				
C	HLS				
	MP4				
	FLV				
	AAC				
Recording Channels		5	7	6	
Peak Number of Recording Channels					11

Note:

Yellow: recording tasks under stream ID **A**.

Green: recording tasks under stream ID **B**.

Blue: recording tasks under stream ID **C**.

Why was I charged 10.5882 USD after using live recording?

If two live streams are recorded simultaneously or one live stream is recorded into two file formats, two recording channels will be generated. Live recording is billed by the recording channel peak at a price of 5.2941 USD per channel per month, so if there are two channels in a month, then a fee of 10.5882 USD will be charged. For more information, please see Live Recording Billing.

We recommend you go to **Bill Details** > **Bill by Instance** in the Billing Center to check the billing details for live recording. You can click **Bill Details** in the "Operation" column to view the actual recording channel peak of the last

month.

Global CSS Service

Last updated：2022-03-21 13:19:38

How can I configure live push acceleration outside Chinese mainland?

Go to the CSS console > Domain Management, where the default push domain name is pre-configured with push acceleration outside Chinese mainland. If you want to use your own push domain name, add one and then complete CNAME-related operations as instructed to configure acceleration outside Chinese mainland for it.

How can I accelerate push for a playback domain name outside Chinese mainland?

Go to the CSS console > Domain Management > Add Playback Domain, where you can select one of the two acceleration types as needed: **Global Acceleration**, which requires the domain name to have obtained ICP filing in Chinese mainland; otherwise, configuration will fail; **Acceleration in Hong Kong/Macao/Taiwan (China Region) and other regions**, which can be configured just as instructed, but playback is unavailable in Chinese mainland in this case.

How can I check whether acceleration outside Chinese mainland has been configured for my domain name?

You can use a server outside Chinese mainland to run the `ping` command on the push and playback domain names; if the server IP is a nearest node IP, acceleration outside Chinese mainland has been configured. You can also use this tool to test your domain name and check whether the resolved IP corresponds to the acceleration region.

How can I troubleshoot failures of live playback outside Chinese mainland?

Currently, playback outside Chinese mainland supports HTTP-FLV, HLS, and RTMP. You can troubleshoot playback issues in the following way:

1. **Is the domain name pingable?**

   If not, check the current network environment.
2. **Is the obtained HTTP status code 200?**

   If it is not 200, there are several possible reasons for the failure. Generally, if the status code is 403, which indicates authentication failure, you need to check whether the calculation format of hotlink protection complies with the requirements. If the status code is 404, which indicates that the stream played back is not on the platform, you need to check whether the push is normal. For other error codes, submit a ticket for assistance.

   ### What protocols does live push outside Chinese mainland support?

   Currently, only RTMP is supported.

   ### Does live playback outside Chinese mainland support HTTPS?

Yes. Go to the CSS console > Domain Management > Playback Domain > Manage > Advanced Configuration > HTTPS Configuration, where you can add an HTTPS certificate to the domain name for which you want to configure HTTPS pull.

Can I modify the region of live playback acceleration outside Chinese mainland?

Yes. You can do so in the CSS console > Domain Management. It takes about 15 minutes for the change to take effect.
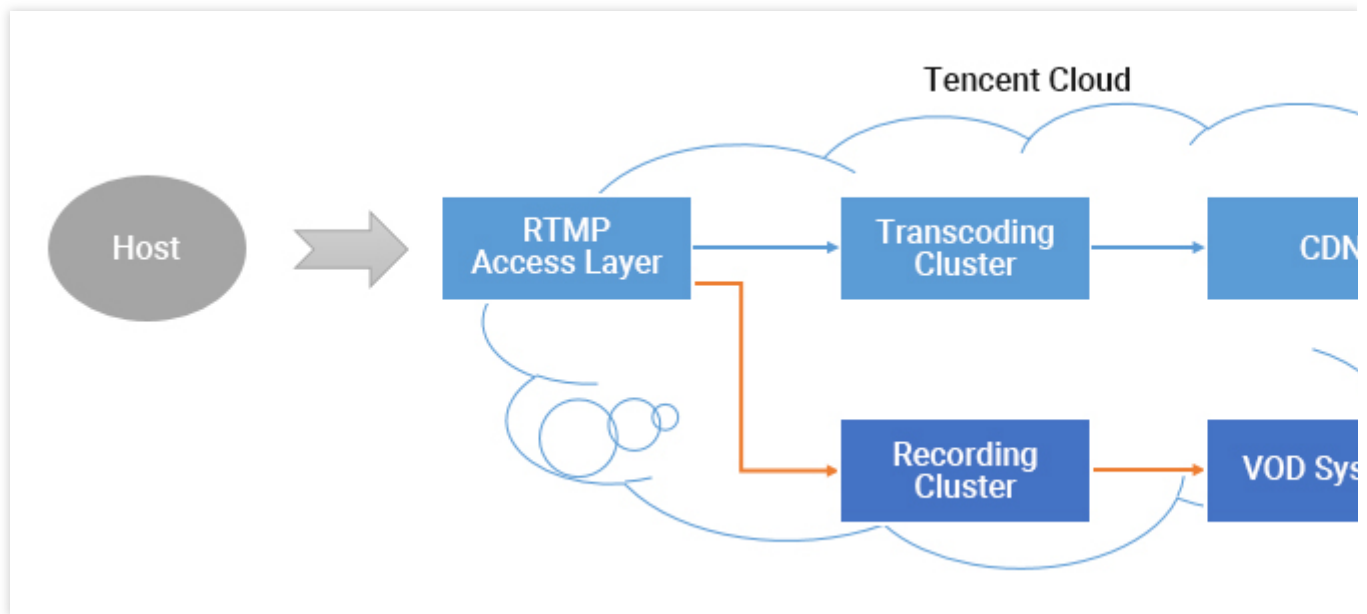
Does push acceleration outside Chinese mainland support HttpDNS scheduling?

Yes, but you need to submit a ticket for configuration in the backend.

Live Recording

Last updated：2023-10-08 14:24:12

How does live recording work?

After you enable recording for a live stream, each audio/video frame published from the host's mobile phone will be relayed to the recording system and written into a recording file.

When a live stream is interrupted, the access layer will immediately request the recording server to end the writing process, save the generated files to VOD, and generate an index for the file. You can then find the recording file in VOD. If you have configured the recording callback, the recording system will send the **index ID** and **playback URL** to the server you specified.

If a file is too large, errors may occur while the file is being transferred and processed in the cloud. As a result, to ensure the success of recording, we have capped the duration of a single recording file at 120 minutes. You can record shorter video segments by setting the `RecordInterval` parameter to a smaller value.

Why can't I use the live recording feature?

The live recording feature relies on Tencent Cloud's **VOD service**. To use this feature, you need to activate VOD first. For more information, see Recording and Replay.

When will the recording file be ready after a live stream ends?

The recording file is ready when you receive the recording callback (about 5 minutes after a live stream ends). For more information, see Live Stream Callback.

How do I get recording files?

After the recording file is generated, it will be stored in the VOD platform or Cloud Object Storage (COS). Customers need to activate the VOD service and Cloud Object Storage for successful storage. You can obtain the recorded file through the following methods:

Stored on Tencent Cloud Video on Demand (VOD) platform

VOD console

Recording event notification

Query by VOD API

Stored in Cloud Object Storage (COS)

Cloud Object Storage (COS) Console

Recording to COS

Query via COS API

Can I migrate my videos?

To migrate your videos, you need to get the download addresses and download your videos.

How do I set the video storage period?

CSS does not set a limit on the video storage period. You can manage your video files in the console or via RESTful APIs.

How many recording files are generated for a live stream?

Recording in MP4, FLV, or AAC format: A single recording file can be 1 to 120 minutes long. You can specify a shorter maximum duration by setting the `RecordInterval` parameter of the CreateLiveRecordTemplate API.
If a live stream is so short that it ends before the recording module is started, no recording files will be generated.
If a live stream is shorter than `RecordInterval` and is not interrupted, only one recording file will be generated.
If a live stream lasts longer than `RecordInterval`, the stream will be recorded into multiple files. This is to reduce the uncertainty of a file's transfer time in a distributed system.
If a live stream is interrupted and resumed, a new recording file will be generated each time an interruption occurs.
Recording in HLS format: There is no upper limit on the duration of recording files. However, if a live stream is interrupted and the timeout period for breakpoint resumption (which can be set to 0-1800s) elapses, a new recording file will be generated.

How do I know which live stream a recording file belongs to?

It depends on how you define a live stream. Assume that a host streamed for 20 minutes, but the stream was interrupted twice, once due to network change and once manually by the host. Does this count as one or three live streams?
In most mobile live streaming scenarios, we consider the period from when a host starts live streaming to when they end it as one live stream.

If you use the above standard, to determine which live stream a recording file belongs to, just search for recording notifications by live stream code and time. Each recording notification carries information including **stream ID**, **start time**, and **end time**.

How do I splice the recording files of a live stream?

You can use a cloud API to splice recording files.

Why are there two recording channels when I have configured only one recording template?

This is usually because two recording tasks are initiated for the push domain. Check the following:

1. Check in the console whether you have selected two recording formats.

If you use the new console, select Domain Management on the left sidebar, find your push domain, click **Manage** on the right to enter the details page, and select **Template Configuration** to view your recording configuration.

If you use the legacy console, go to **Live Stream Code Access** > **Access Configuration** to view the recording configuration.

2. Make sure you haven't called the 3.0 API CreateRecordTask or 2.0 API Live_Tape_Start to start a recording task at the same time. You can either call the CreateRecordTask API or create a recording template in the console to start recording. If you create a recording task and configure a recording template for a live stream at the same time, it will be recorded twice.

Caution

If you enabled live recording in the legacy console and want to disable it in the new console, please submit a ticket.

If the problem persists, please submit a ticket.

How do I record audio only?

If you record the streams of a specific room, add the following parameter to the end of your push URL:

Audio only: `record_type=audio`

Video: `record_type=video`

If you want both video and audio-only files, you can record videos first and then transcode the video files to audio files in VOD.

How do I save my videos permanently?

Set the storage period in your recording template to 0. For details, see Live Recording.

Can CSS automatically remove the beginning and end of a recording file?

No, because the player is not able to identify the beginning and end of a video. Instead, you can use the following methods:

Trim the recorded videos. For details, see EditMedia.

Adjust the playback progress.

How can I recover my live streaming content if I forget to record it?

Tencent Cloud does not record your content without your request, so you cannot recover the content. This is the case with most cloud service providers.

On-Cloud Stream Mix

Last updated：2022-03-14 14:45:16

What should I do if error code -505 is returned for stream mix after push?

Please wait for about 5 seconds after push starts before starting stream mix.

How do I troubleshoot if the stream mix API returned code -505?

If -505 is reported by the stream mix API, the stream ID has no corresponding data on the CSS backend.

1. You can pull the stream to check whether the stream has been successfully pushed. If the pull succeeds, the push is successful.
2. If the stream can be pulled, but -505 is reported by the API, please check whether the entered `AppID` is correct in the stream mix parameters.

What should I do if the assistant host's voice cannot be heard after stream mix of an audio stream?

Please check whether `input_type` of the audio stream is set to 4.

What will happen if stream mix is not canceled after it is applied for?

The stream mix will continue until the command to cancel it is received.

What will happen if the input stream is suddenly interrupted during stream mix?

If a non-background stream is interrupted, its image will freeze at the last frame. If a background stream is interrupted, the entire video image will freeze. If the interrupted stream is successfully pushed again with the same stream ID within 15 minutes, stream mix will resume automatically.

How do I get the recording stream mix result?

For detailed directions, please see Creating Recording Task.

Why are there black bars in the video image after stream mix?

Possible causes include:

1. An original stream contains black bars.
2. The output aspect ratio in the stream mix parameters is different from that of an original stream. For example, if the target aspect ratio of stream mix is 16:9, but the original video aspect ratio is 4:3, the stream mix backend will add black bars to the original video to change the aspect ratio to 16:9 for output.

You can prevent black bars in the following two ways:

1. Use the aspect ratio of the input video for the output video.

2. Use cropping parameters as instructed in the cropping feature usage.

Why is the assistant host's video image in the mixed stream not in the expected position?

Generally, this is caused by the change of the resolution of an input stream in stream mix. For example, if the input stream resolution is 1280x720 during stream mix application, but it becomes 2560x1440 after a while, then the output video image will change and in a different position.

> Note：
>
> We recommend you not change the resolution of the input stream during stream mix. If necessary, you should calculate the position parameters and apply for stream mix again.

Can the stream mix output be encoded in H.265?

Currently, stream mix supports only H.264 encoding for the output stream. Even if the input stream is encoded in H.265, the output stream can be encoded only in H.264.

Why is error code -30300 returned after I cancel stream mix twice?

The API for canceling stream mix only needs to be called once and should not be called again after the cancellation succeeds.

When will stream mix be automatically canceled after an input stream is interrupted during stream mix?

Taking mixing two streams as an example, if one stream is interrupted, stream mix will not be canceled automatically. If recording is enabled, recording will also continue. If both streams are interrupted, stream mix will be canceled automatically after 15 minutes.

Why does the video image slightly reverse when stream mix is called?

The implementation mechanism of stream mix will align the video images of different streams as much as possible; therefore, slight reverse may occur during processing. To prevent this from affecting your business, unless necessary, please do not call the stream mix API frequently.

If a host mics off during stream mix, will the stream mix layout automatically change?

No. The stream mix scheduler will not modify your layout parameters. If a host mics off, you need to calculate the layout parameters again and initiate stream mix again.

Domain Configuration

Last updated：2021-07-21 19:44:12

How do I add a domain name to CSS?

1. Log in to the CSS Console and enter **Domain Management**.
2. Add your own push or playback domain name. For more information, please see Adding Domain Name.
3. Configure CNAME. For more information, please see CNAME Configuration.
4. After successful configuration, you can push and play back with your own domain name.

Why CNAME is still displayed as not configured after configuration?

After you configure CNAME as instructed in CNAME Configuration, please wait patiently because it takes 15-30 minutes for the configuration to take effect. In addition, you can check whether CNAME configuration is successful by following the steps in Verifying the Effect of CNAME Record.

> Note：
>
> - DNS resolution must be performed over the public network on Linux/macOS/Windows.
> - If the CNAME configuration failure persists, consult your domain name registrar.

What if I don't add my own domain name?

If you activated the CSS service after October 17, 2018, you are required to add your own domain name for playback; otherwise, you cannot play back the live streaming content.

If you activated the service before then, CSS provided a default domain name for you, but we recommend that you replace it with your own domain name. Tencent Cloud has started phasing out the default domain names since December 31, 2018.

> Note：
> Default domain names are system domain names assigned by CSS in the format of `bizid.liveplay.com`` and `bizid.tlivecdn.com`.

I have configured special items for the default domain name. Can my own domain name be resolved to the default one?

To use a new domain name, connect it to CSS from scratch. We recommend that you add and configure your own domain name in the CSS Console.

Related to Live Video Caster

Last updated：2024-07-10 17:59:23

What are the differences between the playlist type and the universal type?

If your PGM output screen comprises only one stream, the playlist type applies; if your PGM output screen comprises two or more streams, the universal type applies. For specific billing rules, see Live Video Caster Billing Details.

Will the billing ends when I only close the browser?

When you use Live Video Caster, closing the browser page does not automatically disconnect the caster output and Live Video Caster continues running in the background. To avoid unnecessary service fees, it is recommended that you click **Stop** for the caster on the Live Video Caster list page after using the caster.

How many casters can I create at most?

Each account is permitted to create five Live Video Caster instances. After you delete a caster, you may add a new one. If you need more casters, please submit a ticket for application.

How can I obtain a playback URL?

After you publish the stream to PGM, you can click **Details** in the upper-right corner to view the stream information and obtain the CDN playback URL of the output.

Where can I find recorded files?

Upon completion of recording, the system will transmit the recorded file to the Video on Demand system. You can view the recorded file in the Video on Demand system. Click **Details** in the upper-right corner to view the caster information and obtain the prefix of your recorded file.

Compatibility with Apple ATS

Last updated：2021-03-12 11:42:07

Apple Inc. announced in WWDC 2016 that by default all new Apps submitted as of January 1, 2017 will not be allowed to use `NSAllowsArbitraryLoads=YES` to bypass ATS restriction. Tencent Cloud will officially support HTTPS as of December 12th. By then, you just need to use the new SDK version (API remains the same) and change the video URLs' prefix from `http://` to `https://` . The new SDK can be automatically adapted to the change.

Please note that compared with HTTP, HTTPS brings a higher security, which is not absolutely necessary for videos, while leading to a reduced connection speed and a higher CPU utilization. If your App still needs to use HTTP under Apple's new policy, you need to modify Info.plist by adding `myqcloud.com` to `NSExceptionDomains` , as shown below.

▼ App Transport Security Settings	⌃⌄	Dictionary	(1 item)
▼ Exception Domains	⌃⌄	Dictionary	(3 items)
▼ myqcloud.com		Dictionary	(3 items)
NSExceptionRequiresForwardSecrecy		Boolean	NO
NSExceptionAllowsInsecureHTTPLoads		Boolean	YES
NSIncludesSubdomains		Boolean	YES

Disabling ATS for specific domain names can be approved by Apple's audit team, but you may need to specify that `myqcloud.com` is a domain name for video playback.

Difference Between Stream Interruption and Stream Suspension

Last updated：2022-03-21 13:33:57

1. Stream Interruption

If a stream that is being broadcasted is interrupted, the push stops and viewers are unable to watch the live streaming. When a stream interruption occurs, a push can be initiated at the VJ end to resume the live streaming.

2. Stream Suspension

If a stream that is being broadcasted is suspended, the push stops and viewers are unable to watch the live streaming. When a stream suspension occurs, no push can be initiated at the VJ end during a certain period of time. The end time of suspension can be set on the console and the suspension period cannot be greater than one month. For example, if stream suspension is enabled for the Stream test123 at 2018-01-01 12:00, and the end time of suspension is set to 2018-01-05-12:00, the VJ for this stream cannot push stream and viewers cannot watch the live streaming during this period.