

RTMP Endpoints for Kaltura Live Streaming

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RTMP Endpoints

RTMP endpoints are the URLs that should be configured on your encoder for streaming live to Kaltura SaaS.

The endpoint contains the following information:

- **Primary RTMP URL** (mandatory) - This is the primary stream target URL.
- **Backup RTMP URL** (optional) - This is the backup stream target URL. If it exists, your encoder will broadcast to both primary and backup endpoints for cases when redundancy is required.
- **Stream name** - This is the unique stream name that is used to identify your stream. Note that if you are broadcasting multiple bit-rate from your encoder, you will need to define several stream names with different suffixes (for example, myStream_1, myStream_2, etc.)

NOTE: Primary to Backup switch is not seamless and requires a browser refresh from the viewer. Stream to the Backup server does not create VOD automatically. So manual VOD restore request is needed.

RTMPS (RTMP over SSL)

RTMPS (RTMP over SSL) is the encrypted version of the RTMP protocol. This means you can send live content in an encrypted, secured and reliable way from your encoder to Kaltura cloud.

To use RTMPS, simply replace the `rtmp://` prefix and port number of the RTSP endpoint.

For example:

RTMP endpoint: `rtmp://1_gdrt137u.p.kpublish.kaltura.com:1935/kLive/?t=b9106yth4`

RTMPS endpoint: `rtmps://1_gdrt137u.p.kpublish.kaltura.com:443/kLive/?t=b9106yth4`

Regenerating the RTMP Stream Token

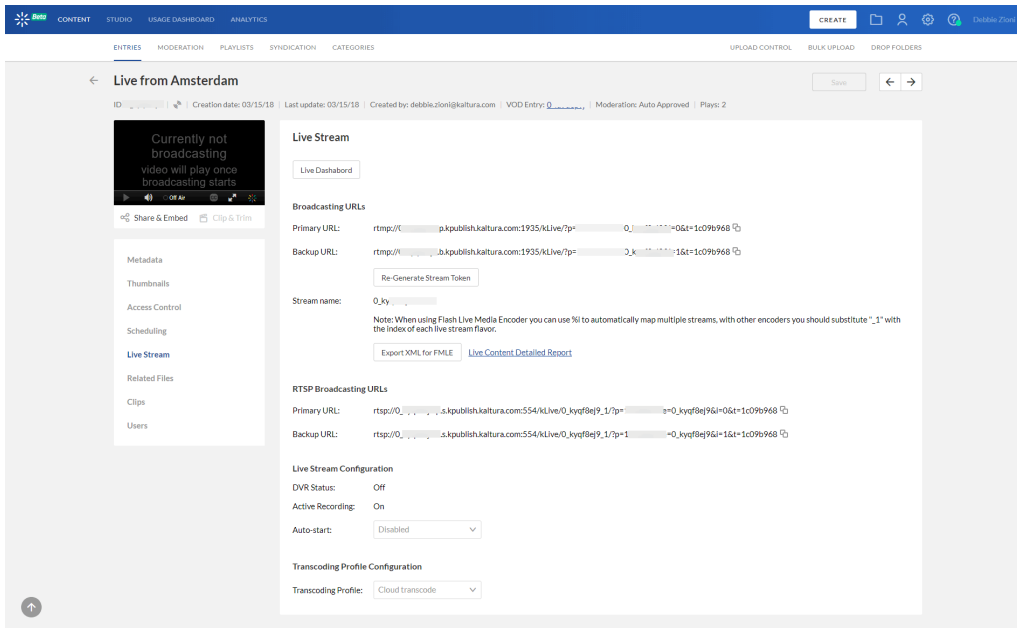
The RTMP token is unique per entry ID and ensures that the RTMP URL will not be manipulated.

if you try to broadcast with an incorrect token (or without one), your broadcast will be rejected.

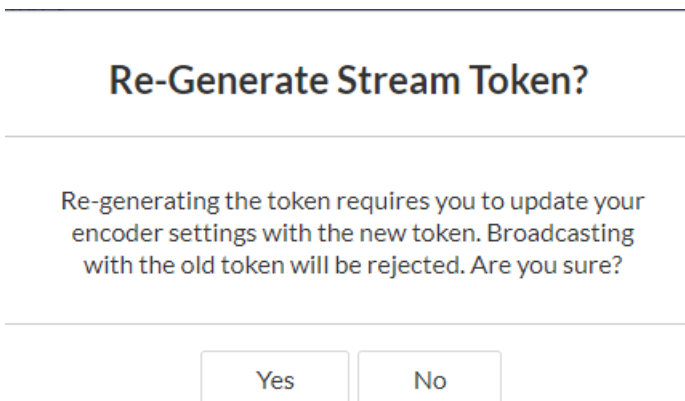
To ensure that security requirements are met and to secure sensitive data, an option to regenerate the live stream token is provided. You can regenerate the stream token as often as required, however, please note that each time you regenerate the stream token you must update your encoder settings with the new token. Broadcasting with the previous token will be rejected.

A confirmation box is displayed notifying you of these changes if you choose to regenerate the stream token.

Sensitive information is blurred in the following graphic intentionally.



The confirmation box displayed:



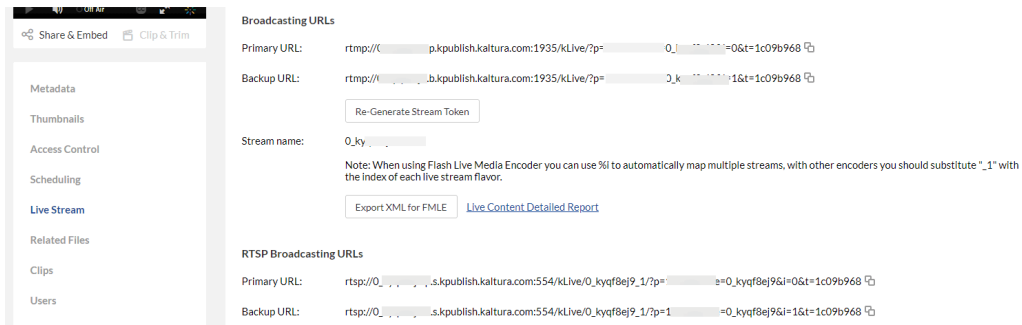
Configuring RTMP Endpoints in your Encoder

There are 2 ways to configure the RTMP endpoints in your encoder:

- [Manually](#)
- [Automatically](#)

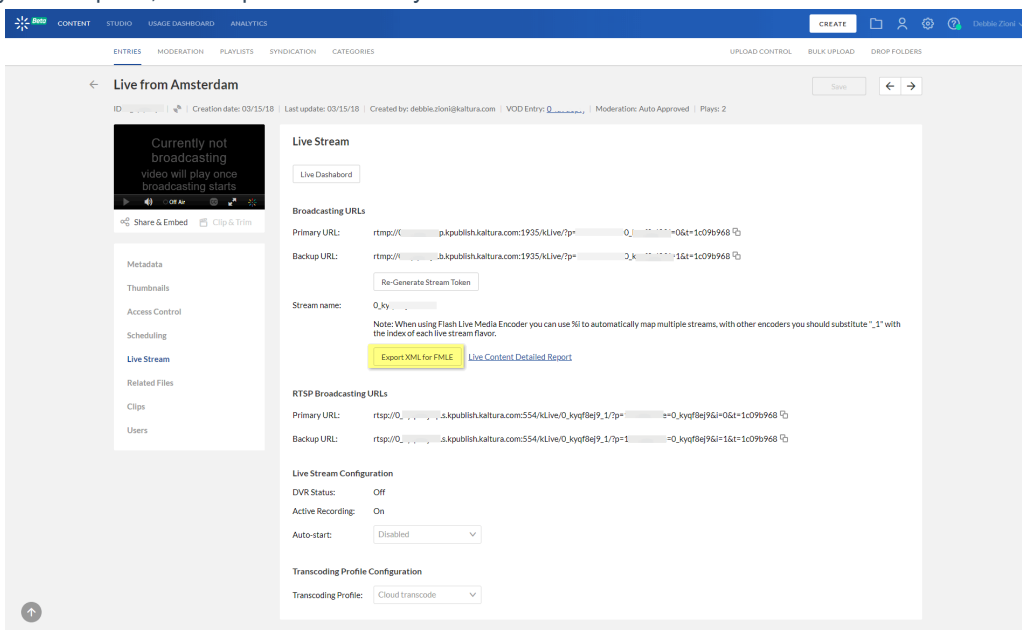
Manually

Copy and paste the RTMP URLs and stream name from the entry page in the Kaltura Management Console (KMC). You can copy the URLs to your clipboard for later use.



Automatically

Kaltura can export the RTMP settings into an Adobe FMLE configuration XML that can be imported to several encoders (such as FMLE and Wirecast). If your encoder can import FMLE XML, click "Export XML for FMLE" and save the file on your computer, then import the file into your encoder.



RTMP URL Structure

The RTMP URL structure is:

```
rtmp://[entryID].[p/b].kpublish.kaltura.com:1935/kLive/?t=[token]
```

- entryID - the unique identifier of your live stream in Kaltura. The entryID is auto-generated by Kaltura servers when creating a live entry
- p/b - "p" for primary, "b" for backup stream
- token - an auto generated token which is used to secure your RTMP URL. Streaming will be possible only when the token is correct.

Example: `rtmp://1_gdrt137u.p.kpublish.kaltura.com:1935/kLive/?t=b9106yth4`

Geographical Considerations - Using Regional RTMP Endpoints

Kaltura Geo-redundant data-centers are located in the US (New York and Palo Alto), In some cases, when broadcasting

to Kaltura from outside of the US, there may be bandwidth issues and fluctuation.

To overcome this issue, Kaltura has setup up regional RTMP endpoints that maintain persistent connections to our US data-centers to eliminate most of the bandwidth issues that occur due to geography.

The proxies serve the following regions:

- EMEA (Frankfurt, Germany)
- LATAM (Sao Paulo, Brazil)
- APAC (Singapore)

Each regional proxy is fully redundant (primary/backup).

To decide which is the optimal endpoint for your setup, based on your encoder location, please use the below speed-test URLs and check which region provides the best speed and stable connection:

- Kaltura DC - US (New York) - <http://ny-publish-speedtest.kaltura.com> ()
- Kaltura DC - US (Palo Alto) - <http://pa-publish-speedtest.kaltura.com> ()
- EMEA (Germany) - <http://fr-publish-speedtest.kaltura.com>
- LATAM (Brazil) - <http://br-publish-speedtest.kaltura.com>
- APAC (Singapore) - <http://sg-publish-speedtest.kaltura.com>

If you are broadcasting outside of the US and encounter connectivity or other issues, please contact Kaltura Customer Care and we will route you via a local regional RTMP endpoint.

RTSP Endpoints

In addition to RTMP Kaltura provides RTSP endpoints for devices that do not support RTMP.

The endpoint contains the following information:

1. **Primary RTSP URL** (mandatory) - This is the primary stream target URL.
2. **Backup RTSP URL** (optional) - This is the backup stream target URL. If it exists, your encoder will broadcast to both primary and backup endpoints for cases when redundancy is required.