Stream to YouTube Live from Wowza Streaming Cloud

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With the Wowza Streaming Cloud™ service you can send live streams to YouTube Live, where your audience can watch your live event. Streaming to YouTube Live requires that you have a Google account and that you’re set up in YouTube to broadcast live streams.

**Note:** In this tutorial, YouTube, not Wowza Streaming Cloud, performs the transcoding on your live stream.

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**Create the live event in YouTube**

Start by creating a live event in YouTube Live.

1. Using your Google credentials, sign in to the YouTube Video Manager Live Events page and click **New live event**.
2. On the **Basic info** tab of the **Info and Settings** page, enter a title, description, date/time, and other details for the live event.
3. For **Type**, select **Custom (more encoding options)**.

4. Specify options on the **Advanced settings** tab as desired.

   To enable auto-starting the YouTube event when you start the transcoder and source, select **Automatically start the event when you start sending data** under **Auto-start**.
5. Click Create event.
6. On the Main Camera tab of the Ingestion Settings page, select Single-use stream key or Reusable stream key. For more information about stream keys and ingestion settings, see Choose ingestion settings.
   After specifying the type of stream key, the Ingestion Settings page displays encoder options.
7. Under Select your encoder, choose Other encoders. Make note of the Stream Name and Primary Server URL, which you’ll need to provide to Wowza Streaming Cloud. If you want to increase redundancy, also make note of the Backup Server URL.

Note: The Stream Name is a 16-digit alphanumeric code, not the Title you gave the stream on the Basic info tab of the Info and Settings page.

Create a live stream or transcoder in Wowza Streaming Cloud

YouTube only accepts one stream, or output rendition, which it transcodes for playback. Depending on the type of subscription you have in Wowza Streaming Cloud, prepare a stream for YouTube by doing one of the following:

- Create an adaptive bitrate live stream and send only one output rendition, the highest bitrate output rendition, to YouTube. All subscriptions support adaptive bitrate live streaming. For instructions, jump to Create and prepare a live stream for YouTube.
- Create a passthrough transcoder and send the transcoder’s one passthrough rendition to YouTube. This option requires a subscription that supports passthrough. For instructions, jump to Create and prepare a passthrough transcoder for YouTube.

If you’re not sure what type of subscription you have, check your account on the Wowza portal.

For information about 24x7 and passthrough streaming subscriptions, see Wowza Streaming Cloud 24x7 streaming plans.

Create and prepare a live stream for YouTube
When you create a live stream, Wowza Streaming Cloud automatically creates multiple adaptive bitrate output renditions based on the aspect ratio and resolution of the source video. However, you’re only going to need the highest bitrate output rendition, which is 1280 x 720 in this tutorial. That’s what you’ll send to YouTube.

1. In Wowza Streaming Cloud, click **Live Streams** on the menu bar, and then click **Add Live Stream**.
2. On the **Live Stream Setup** page, enter a **Live Stream Name**, choose a **Broadcast Location**, and then click **Next**.
3. If you have the option on the **Video Source and Transcoder Settings** page, specify the **Live Stream Type** as **Adaptive bitrate**.
4. For **Closed Captions**, choose **None** or **CEA-608-digital**.
5. Specify other video source settings, including an aspect ratio of 1280 x 720, and then click **Next**.

**Note:** For more information about live stream settings, see the **Help** panel on the right side of each page.

6. Click **Next** two times to skip the **Playback Settings** and **Hosted Page Settings** pages. These options don’t matter if you’re delivering the stream to viewers at YouTube.
7. On the **Review** page, click **Finish** to create the live stream.

Wowza Streaming Cloud creates the live stream and displays the **Overview** tab of the live stream detail page.

To prepare the live stream for YouTube, go to the stream’s transcoder detail page.

8. Click **Advanced** on the menu bar, click **Transcoders**, and then select your live stream’s transcoder. It appears as **[Live stream name] / Transcoder**.
9. Click the **Outputs & Targets** tab of the transcoder detail page.

The **Outputs & Targets** tab displays the output renditions for your live stream. The first output on the list is the highest bitrate output rendition, the one you’re going to send to YouTube. You’re not using the others, so delete them.

10. For the second output on the page, click the trash can icon. When prompted, click **OK** to confirm that you want to delete the output.

11. Repeat Step 10 to delete the other adaptive bitrate output renditions until only the
highest bitrate rendition remains.

There's one more clean-up step. You're not using the stream target that Wowza Streaming Cloud automatically created for the highest bitrate output rendition, so delete it, too.

12. Click the Actions button for the highest bitrate output’s assigned target and then click Remove this stream target. When prompted, click OK to confirm that you want to delete the target.

Now you're ready to create the custom YouTube stream target for your live stream. For instructions, jump to Create a YouTube target for the live stream or transcoder.

Create and prepare a passthrough transcoder for YouTube

1. In Wowza Streaming Cloud, click Advanced on the menu bar, click Transcoders, and then click Add Transcoder.
2. On the Transcoder Setup page, enter a Transcoder Name.
3. For Transcoder Type, choose Passthrough. Then, choose a Broadcast Location that’s as close as possible to where your stream will originate.
4. For Closed Captions, choose None or CEA-608-digital.
5. Specify the other transcoder setup options.

**Note:** For more information about transcoder settings, see the Help panel on the right side of the page.

6. Click Add.

Wowza Streaming Cloud creates the transcoder and displays the Outputs & Targets tab of the transcoder detail page. A single passthrough output rendition is ready for the transcoder. You just need to create the custom YouTube stream target for it. For instructions, continue to Create a YouTube target for the live stream or transcoder.

Create a YouTube target for the live stream or transcoder

Next, create a custom target that sends the live stream or transcoder’s output rendition to YouTube over RTMP.

1. On the Outputs & Targets tab of the transcoder detail page, for the output rendition,
click **Add a Stream Target** and then choose **Custom**.

2. On the **Create a custom target** page, provide details for the YouTube target:

   - **Target Name** - A short, descriptive name for this target.
   - **Provider** - Choose RTMP.
   - **Primary URL** - The **Primary Server URL** from the YouTube Video Manager **Ingestion Settings** tab. Omit the RTMP prefix and the trailing slash.
   - **Backup URL** - The **Backup Server URL** from the YouTube Video Manager **Ingestion Settings** tab, if you choose to use it for increased redundancy. Omit the RTMP prefix and the trailing slash.
   - **Stream Name** - The **Stream Name** from the YouTube Video Manager **Ingestion Settings** tab.
   - **Target Username** - Leave blank.
   - **Target Password** - Leave blank.
   - Leave the playback URL fields blank.

3. Click **Add**.

### Start your stream

Make sure your video source is set up, connected to Wowza Streaming Cloud, and ready to roll. Then:

1. Select your transcoder.
2. Click **Start Transcoder** at the top of the transcoder detail page.
3. Click **Start** to confirm that you want to start the transcoder.

   Wowza Streaming Cloud starts the transcoder and connects with the source.

4. Start your video source.
5. In Wowza Streaming Cloud, confirm that the stream is working by looking at the **Video Snapshot** in the **Overview** tab of the transcoder detail page.

   The video snapshot displays a frame from the live stream every five seconds. The started date and time appear under the snapshot. Source stream, transcoder, and delivery metrics begin to update.

6. If you enabled **Automatically start the event when you start sending data** in the
YouTube event's **Info & Settings** page, **Advanced Settings** tab, the YouTube broadcast begins automatically. Otherwise, in the YouTube Live Video Manager, click the **Live Control Room** page to preview and start your broadcast.

7. When your event ends, stop the video source, stop the live stream in Wowza Streaming Cloud, and stop the event on YouTube.

More resources

- [Wowza Streaming Cloud user guide](#)
- [Encoding best practices for Wowza Streaming Cloud](#)