Create a passthrough live stream or transcoder in Wowza Streaming Cloud

The Wowza Streaming Cloud™ service allows you to broadcast live streams and transcoders by using **passthrough streaming**. With passthrough streaming, no transcoding is performed. Wowza Streaming Cloud receives the encoded stream from your video source and sends it directly to the hosted page or target without creating adaptive bitrate renditions. Passthrough streaming is useful for such workflows as IP camera live feeds or routing streams to specific destinations.

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About passthrough streaming

Live streams and transcoders in Wowza Streaming Cloud can be **adaptive bitrate or passthrough**. Adaptive bitrate streaming generates multiple output renditions, at different bitrates, of your encoded source stream. Passthrough streaming, in contrast, sends the source video directly to its destination—whether that’s a hosted page, a player that uses the stream’s embed code, a playback URL, or a Wowza CDN or custom stream target—without performing transcoding.

Passthrough streams use a single output rendition whose video and audio bitrate, H.264 profile, frame rate, aspect ratio, and keyframe interval match those of the source video.

Passthrough streams require a 24x7 subscription. For information, see [Wowza Streaming Cloud 24x7 Streaming Plans](#).
Passthrough streaming isn't available at all broadcast locations. If passthrough streaming isn't available in the region closest to where you're broadcasting, choose a location that's farther away.

4K streaming isn't available with passthrough streaming.

Create a passthrough live stream

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** and choose a **Broadcast Location**.

Use the map tile tags to identify the location that's closest to you and supports passthrough streaming. If you don't see the blue PASS tags, it means your subscription doesn't support passthrough streaming. For information about purchasing a passthrough streaming subscription, see Wowza Streaming Cloud 24x7 and passthrough streaming plans.

3. Click **Next**.
4. On the **Video Source and Transcoder Settings** page, select the encoder or camera you want to use to connect to Wowza Streaming Cloud.
5. For **Live Stream Type**, choose **Passthrough**. Then, choose a **Billing Mode**.

<table>
<thead>
<tr>
<th>What type of live stream is this?</th>
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<tbody>
<tr>
<td>- Adaptive bitrate</td>
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<tr>
<td>- Passthrough</td>
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<table>
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<tr>
<th>What billing mode do you want to use?</th>
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<tbody>
<tr>
<td>- 24x7</td>
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<tr>
<td>- Pay as you go</td>
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**Note:** The **Live Stream Type** and **Billing Mode** can't be changed after the...
6. Specify other video source settings, click **Next**, and complete the steps to finish creating the live stream.

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

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

The passthrough live stream can be viewed:

- On the hosted webpage, if you asked Wowza Streaming Cloud to create one. Click the **Hosted Page** tab of the live stream detail page for the link to the hosted page.
- At the playback URL or URLs that are available on the **Overview** tab of the live stream detail page.
- In any player on a third-party webpage that uses the **Player Embed Code** available from the **Overview** tab of the live stream detail page.

### Create a passthrough transcoder

1. Click **Advanced** on the menu bar, click **Transcoders**, and then click **Add Transcoder**.
2. On the **Transcoder Setup** page, for **Transcoder Type**, choose **Passthrough**. Then, choose a **Billing Mode**.

```
What type of transcoder is this?

- Adaptive bitrate
- Passthrough

What billing mode do you want to use?

- 24x7
- Pay as you go
```

**Note:** The **Transcoder Type** and **Billing Mode** can’t be changed after the live stream is created.
3. Specify other transcoder setup options. For more information on the options, see the Help panel on the right side of the page.
4. Click Add.

Wowza Streaming Cloud creates the transcoder and displays the Outputs & Targets tab of the transcoder detail page.

The Outputs & Targets tab displays the output renditions for your transcoder. For passthrough transcoders, Wowza Streaming Cloud automatically creates a single output rendition based on the source video’s encoding settings. This passthrough output rendition can’t be edited, and you can’t create additional, custom outputs for passthrough transcoders. You must, however, assign at least one stream target to the transcoder’s passthrough output rendition.

Note: If you create a passthrough live stream, you can view its passthrough output rendition and assign targets to it from the live stream’s transcoder detail page. Select [Live stream name] / Transcoder in the Transcoders panel.

5. Click the Add a Stream Target button for the passthrough output rendition and choose the type of target you want to create.
6. On the add target page, provide the requested details. For more information on stream target settings, see Add and manage stream targets in the Wowza Streaming Cloud User’s Guide or consult your external provider’s documentation.

Note: You can’t add ultra low latency stream targets to transcoder output
7. Click **Add**.
8. (Optional) If desired, repeat Steps 5 through 7 to add additional targets to the output rendition. Otherwise, your passthrough transcoder is complete.

The passthrough transcoder can be viewed:

- At the target’s playback URL or URLs, which are listed on the **Setup** tab of the stream target detail page. To go to the stream target detail page, click the stream target name on the transcoder **Outputs & Targets** or **Overview** tab.
- At the custom or CDN stream target’s playback URL.

**Test your passthrough setup**

Connect your live stream or transcoder to the source encoder or camera and test the setup.

1. Select the live stream or its transcoder to view its detail page.
2. Click **Start Live Stream** or **Start Transcoder** at the top of the page.
3. Click the confirmation button to start the stream or transcoder.

Wowza Streaming Cloud opens the stream and connects with the video source.

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

The **Video Thumbnail** displays a frame from the live stream every five seconds. The started date and time appear at the bottom of the thumbnail. Connection, transcoding, and delivery metrics begin to update in the **Statistics** panel.
6. Check playback of the live stream or transcoder at its destination—the hosted webpage, a playback URL, or at the third-party stream target.

7. Click **Stop Live Stream** or **Stop Transcoder** at the top of the page to end your test stream, and then stop the video source.

## Check passthrough usage

At any time you can see how much usage your passthrough streams have accrued.

1. Do one of the following, depending on the type of usage you want to see:
   
   - For a live stream or transcoder, go to its detail page and in the **Selected** panel on the left side of the page, click **Usage**.
   - For a Wowza CDN stream target, go to its detail page and in the **Selected** panel on the left side of the page, click **Usage**.
   - For an account, click your user name in the menu bar and choose **Usage**.

2. Select a predefined date/time range or specify a range using the **From** and **To** fields, and then click **Show**.

3. Click the tab for the type of usage you want to view.

   **Stream Processing** – For live streams and transcoders, the **Stream Processing** tab displays a table with a row for each time the live stream or transcoder passed through Wowza Streaming Cloud during the time frame. The total processing time for the entire time frame appears below the table.

   For accounts, the **Stream Processing** tab displays a **Passthrough Stream Processing Time** table with a row for each live stream or transcoder that
passed through Wowza Streaming Cloud during the time frame. You can see total **Hours Used**. Total **Hours Used** for the time frame appear at the bottom of the table. Click a live stream or transcoder to go to its **Usage** page.

**Bandwidth** – For live streams and transcoders, if the live stream or transcoder used stream sources and/or stream targets, **Bandwidth** graphs show how much CDN content was processed during the time frame. Totals appear next to the graph titles. Total bandwidth for all sources and targets appears below the graphs.

For live streams and transcoders, the **Bandwidth** tab also shows egress. **Egress** is traffic that leaves Wowza Streaming Cloud for Wowza CDN and custom stream targets. The **Egress** table displays a row for each time the live stream or transcoder generated egress during the time frame. The total amount of egress for the time frame appears below the table.

For stream targets, the **Bandwidth** tab shows how much content the target has processed during the time frame. The total appears next to the graph title.

For accounts, the **Bandwidth** tab shows how much CDN usage and egress all live streams and transcoders have accrued during the time frame. If any live streams or transcoders used stream sources and/or stream targets, the CDN tables show how much traffic was generated (**Amount Used**) for each stream source or target. Total CDN usage appears below each table. The **Egress** tables show how much egress was generated (**Amount Used**) for each live stream or transcoder during the time frame. Total egress for the time frame appears below each table.

**Notes:**
- Stream processing time and egress usage update in or near real-time. For streams running through Wowza CDN on Akamai targets, billing usage updates approximately every 12 hours.
- For streams running through Wowza CDN on Akamai targets, bandwidth data (CDN usage) is subject to a delay of up to three hours. If you try to generate a bandwidth report and receive the message, "Not enough data is available for the time period you selected," it could be due to the three-hour delay. Try again in a few hours.