About broadcasting live streams

A live stream is a single, linear video broadcast. You broadcast a live stream by receiving encoded source video into the Wowza Streaming Cloud™ service and letting Wowza Streaming Cloud transcode the stream and deliver it to viewers. Each live stream has a name and location, specifies how the video source connects with Wowza Streaming Cloud, and defines the playback method that allows viewers to watch the stream.
You create live streams and edit their settings on the **Live Streams** page of the Wowza Streaming Cloud manager.

**Tip:** For videos on how to add and manage live streams, see [Wowza Media Systems on YouTube](https://www.youtube.com).

---

**Add a live stream**

Create a live stream by completing a few easy steps.

1. Click **Live Streams** on the menu bar, and then click **Add Live Stream**.

2. On the **Live Stream Setup** page, provide basic information about your stream and then click **Next**.

   For information about the settings, see **Live Stream Setup options**.

3. On the **Video Source and Transcoder Settings** page, provide information about the source encoder or camera that you’re using, or your Wowza Streaming Engine server, and how it will connect to Wowza Streaming Cloud. Then, click **Next**.

   For information about the options, see **Video Source and Transcoder Settings**.

4. On the **Playback Settings** page, configure the player that you want to use and then click **Next**.

   For information about the options, see **Playback Settings**.

5. On the **Hosted Page Settings** page, configure the hosted webpage for your live stream, if you want one, and then click **Next**.

   For information about the options, see **Hosted Page Settings**.
6. Review your choices. If necessary, click Back or click the Live Stream Setup, Video Source and Transcoder Settings, Playback Settings, or Hosted Page Settings icon to edit your selections.

7. Click Finish.

Wowza Streaming Cloud creates the live stream and displays the Overview tab of the live stream detail page.
Live Stream Setup options

- **Live Stream Name** – A short, descriptive identifier for the stream that differentiates it from other streams. The **Live Stream Name** is required and can’t be more than 200 characters in length. It doesn’t have to be unique.

- **Broadcast Location** – The geographic region where Wowza Streaming Cloud transcodes and processes your live stream. Select a **Broadcast Location** that:
  - Supports 4K streaming (3840x2160 resolution), if you want to use it,
  - Supports the billing mode you’re using, pay as you go or 24x7, and
  - Is as close as possible to where your stream will originate.

**Notes:**
- 24x7 streams can’t be recorded.
- **Asia Pacific (Taiwan), EU (Belgium), US Central (Iowa), and US East (South Carolina)** don’t allocate dedicated GPU resources to 4K, 24x7 streams. As a result, running 4K streams in the 24x7 billing mode at these locations is not recommended.
- For information about the features available at each location, see the technical article **Wowza Streaming Cloud broadcast location features**.
- For information about 24x7 and passthrough subscriptions, see the **Wowza Streaming Cloud 24x7 streaming plans** page.
- The **Broadcast Location** can only be changed by editing it on the **Transcoder Setup** tab of the stream’s transcoder detail page. For details, see the user guide topic **Edit a transcoder’s settings, outputs, or targets**.

Video Source and Transcoder Settings

- **Camera / Encoder** – Choose one of the following sources:
  - **Wowza Streaming Engine™** – Wowza Streaming Engine can push streams Wowza Streaming Cloud to deliver streams through Wowza Streaming Cloud output targets.

When you choose Wowza Streaming Engine as your video source, specify how you want to use it with Wowza Streaming Cloud: To stream directly to a Wowza CDN target without performing transcoding in Wowza Streaming Cloud, select **Yes**. To send a stream to Wowza Streaming Cloud for transcoding and/or to deliver the source stream to multiple stream targets in Wowza Streaming Cloud, choose **No**. Streams
that go directly to a Wowza CDN target without transcoding can't be recorded in Wowza Streaming Cloud. Also, you can't change the type of stream you send from Wowza Streaming Engine after the Wowza Streaming Cloud live stream is created.

- **Wowza ClearCaster™** – An appliance for broadcast-quality, reliable streaming on Facebook Live.
- **Wowza GoCoder™** – A mobile encoding app for iOS and Android devices.
- **Works with Wowza™ partner** – Choose a professional encoder or IP camera from a Works with Wowza partner, including Axis, NewTek, Sony, Telestream, or Teradek.
- **IP Camera** – Any IP camera that supports RTSP and H.264.
- **Other RTMP** – Any encoder that supports RTMP and H.264.
- **Other RTSP** – Any encoder that supports RTSP and H.264.
- **Other WebRTC** – An open-source project that enables real-time communication of audio, video, and data in web browsers and apps.
- **Other SRT** – SRT is an open source video transport protocol that is designed to deliver secure, high-quality, low latency live streams over unpredictable network conditions.
- **Other UDP** – UDP is a connectionless protocol that makes it easier to transmit information quickly, but is also more prone to network issues, packet loss, and packets arriving out of order.

- **Live Stream Type** – Live streams can be Adaptive bitrate or Passthrough. An Adaptive bitrate stream generates multiple renditions of the source video, at different bitrates. A Passthrough stream sends the source video directly to the hosted page or other target without performing transcoding.

If your subscription plan covers passthrough streaming, select whether you want to create a passthrough or adaptive bitrate live stream.

**Important:** The Live Stream Type can't be changed after the live stream is created.

- **Billing Mode** – If your subscription plan covers 24x7 billing, choose whether you want to run the stream in Pay as you go or 24x7 mode.

**Notes:**
24x7 streams run until they are stopped either manually or by using a schedule. They do not automatically stop after the transcoder has been idle for 20 minutes.

- 24x7 streams can't be recorded.
- 24x7 streams don't support 4K resolution.
- The Billing Mode can't be changed after the live stream is created.

**Source Delivery Method** – For Other RTMP or Other RTSP, specify whether the encoder will **Push** the stream to Wowza Streaming Cloud or whether Wowza Streaming Cloud needs to **Pull** the stream to the transcoder.

For Other RTMP push streams, select **Push directly to Wowza Streaming Cloud** to send the stream directly to the transcoder at your **Broadcast Location**. If you experience problems with the direct connection to Wowza Streaming Cloud, select **Push to a stream source** to route the stream through a CDN endpoint as an alternative.

**Source URL** – For IP cameras, including IP cameras from Works with Wowza partners, and for RTMP and RTSP pull streams, enter the device’s web address. Consult the device’s documentation for the syntax of the stream address and enter it in the **Source URL** field.

**Note:** By default, Wowza Streaming Cloud uses TCP port 1935 for RTMP streaming and TCP port 554 for RTSP streaming. If you don’t use the default port, be sure to indicate that in the source URL.

**Reduced Latency** – If the **Delivery Protocol** is HLS, you can create a reduced-latency stream. Reduced-latency streams use modified transcoder buffer settings and send smaller video packets to players from Wowza CDN on Fastly or Wowza CDN on Akamai – HLS stream targets. This can reduce latency to as little as 10 seconds, but it also creates additional network overhead. If the client doesn’t have enough bandwidth, playback may stall. Also, playback may be affected on some older devices. Select **Yes, create an HLS stream with reduced latency** only if your viewers experience unacceptably long latency while watching your live stream over Wowza CDN on Fastly or Wowza CDN on Akamai - HLS stream targets.

**Notes:**
- The live stream **Reduced Latency** setting does not affect latency on streams viewed on a Wowza Streaming Cloud hosted webpage.
• Reduced latency live streams that use Wowza Streaming Engine as the video source are assigned Wowza CDN on Akamai - HLS stream targets. All other live streams are assigned Wowza CDN on Fastly targets.

• The reduced latency option can’t be changed on the **Video Source and Transcoder** page. Change the segment duration on the Wowza CDN on Akamai - HLS stream target’s detail page (see the user guide topic *Edit an HLS stream target’s properties*). Adjust the incoming buffer size and turn on the sort packet buffer on the live stream’s transcoder detail page (see the user guide topic *Edit a transcoder’s settings, outputs, or targets*).

**Aspect Ratio** – The aspect ratio and pixel dimensions, or frame size, of the source video. Choosing the correct aspect ratio and dimensions ensures that the video won’t be distorted, squeezed, or cropped when it’s played.

The higher the resolution of the incoming video, the more bitrate renditions Wowza Streaming Cloud generates. A **bitrate rendition** is a version of the live stream at a specific frame size and bitrate, such as 640x360 pixels at 1200Kbps. Wowza Streaming Cloud creates multiple bitrate renditions, based on the resolution of the source video, to offer the best possible playback experience given a viewer’s device and bandwidth. The following tables show how many bitrate renditions Wowza Streaming Cloud generates.

### 16:9

<table>
<thead>
<tr>
<th>Source Video Frame Size</th>
<th>Number of Bitrate Renditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \leq 3840 \times 2160 )</td>
<td>7</td>
</tr>
<tr>
<td>( \leq 1920 \times 1080 )</td>
<td>6</td>
</tr>
<tr>
<td>( \leq 1280 \times 720 )</td>
<td>5</td>
</tr>
<tr>
<td>( \leq 848 \times 480 )</td>
<td>4</td>
</tr>
<tr>
<td>( \leq 640 \times 360 )</td>
<td>3</td>
</tr>
</tbody>
</table>
4:3

<table>
<thead>
<tr>
<th>Source Video Frame Size</th>
<th>Number of Bitrate Renditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 768 x 576</td>
<td>4</td>
</tr>
<tr>
<td>≤ 640 x 480</td>
<td>3</td>
</tr>
<tr>
<td>≤ 384 x 288</td>
<td>No transcoding. One output rendition.</td>
</tr>
</tbody>
</table>

- **Recording** – If you want Wowza Streaming Cloud to create a recording of your live stream, select **Yes, record this live stream**.

  **Note:** Recordings incur storage costs. For more information about recording streams and usage, see the user guide topic **Record live streams and transcoders**.

- **Closed Captions** – Wowza Streaming Cloud can receive closed caption data with your source stream so that captions appear when the stream is played using the HLS protocol. Choose the type of caption your video source is sending to Wowza Streaming Cloud: **CEA-608 (digital)**, Action Message Format (AMF) **onTextData**, or **CEA-608 (digital) and onTextData**. To omit captions from playback, leave the closed captioning option set at **None**.

  **Note:** Wowza Streaming Cloud supports only the digital CEA-608 portion of the CEA-708 closed captioning standard.

- **Source Security** – By default, Wowza Streaming Cloud secures **Wowza GoCoder**, **Wowza ClearCaster**, **Other RTMP / Push directly to Wowza Streaming Cloud**, and **Other RTSP / Push Stream** connections by requiring a source username and password for authentication. Select **Disable authentication** if you don’t want to use authentication with your video source connection. Usernames and passwords can contain only upper and lowercase letters; numbers; and the period (.), underscore (_), and hyphen (-) characters. No other special characters can be used.
Playback Settings

Playback settings are used by the player on your Wowza Streaming Cloud hosted webpage. If you use a different player or play streams in Safari using the HLS playback URL, playback settings are disregarded.

- **Player** – Choose the player you want to use for your live stream:
  - **Original HTML5 player** – A HTML5-based player that plays HLS and supports closed captions.
  - **Wowza Player** – Wowza™ Player is a lightweight HTML5 player that plays HLS and doesn’t support closed captions.

**Note:** In order to choose Wowza Player, Closed Captions must be **None**. If necessary, go to Video Source and Transcoder Settings to set the Closed Captions option.

- **Player Width** – The width of the player can be either fixed or variable. If you choose **Responsive**, the player’s width adjusts for the device on which it’s being viewed. If you choose **Fixed Width**, enter a width, in pixels. The height is calculated automatically based on the aspect ratio of the video source. The dimensions, whether fixed or responsive, are used in the player embed code.

**Note:** For a fixed-width player, we recommend a minimum width of 365 pixels. If you need a smaller player, use a responsive player instead of a fixed-width player.

- **Countdown Clock** – (Optional) If selected, a countdown clock appears in the player before the stream begins. If you include a countdown clock, provide the date and time zone of the event.

**Notes:**
- With the original HTML5 player, if you display both a poster image and a countdown clock, the poster image appears behind the clock.
- With the original HTML5 player, the countdown clock doesn’t appear in the Flash fallback player.
• **Video Poster Image** – (Optional) Upload a poster image to appear in the player before the stream begins. To prevent distortion or cropping, make sure the image has the same aspect ratio as the source video. Poster images must be GIF, JPEG, or PNG format and no larger than 2.5 MB.

• **Player Logo** – (Optional) A logo or other partially transparent image that appears in the player before and during playback. Upload a logo or other image file that’s GIF, JPEG, or PNG format and no larger than 2.5 MB. Then, specify the corner of the player to which you want to anchor the logo.

  **Note:** With the original HTML5 player, the player logo doesn’t appear in the Flash fallback player.

**Hosted Page Settings**

• **Wowza Streaming Cloud Hosted Page** – A webpage hosted by Wowza Streaming Cloud that includes the video player. Select **Yes** to have Wowza host a webpage for your live stream. Select **No** to manage video playback yourself.

  If you don’t use a hosted page, you can embed the player on your own webpage or use your own player. After you create the live stream, Wowza Streaming Cloud provides the embed code and playback URLs you need for those playback methods.

  **Note:** You can’t add a hosted page after the live stream is created.

• **Hosted Page Title** – A short, descriptive title that appears above the player. HTML, JavaScript, and other tags aren’t allowed. If you leave the **Hosted Page Title** field empty, Wowza Streaming Cloud uses the **Live Stream Name** as the page title.

• **Hosted Page Logo** – (Optional) A graphical logo of your choosing that appears above the player. The logo file must be GIF, JPEG, or PNG format and no larger than 2.5 MB. Wowza Streaming Cloud resizes the image to fit the space on the page.

• **Hosted Page Description** – (Optional) A longer text description of the stream or event that appears below the player. HTML, JavaScript, and other tags aren’t allowed.
• **Sharing Icons** – (Optional) Buttons that let viewers quickly share the link to the video on Facebook, Google+, Twitter, and by email. Sharing icons appear below the player and below the **Hosted Page Description**, if there is one.

---

**Start a live stream**

1. (Optional) If you are broadcasting using a Wowza ClearCaster, you can start your live stream broadcast from the Wowza ClearCaster Manager. Alternatively, use the following steps to start the live stream in Wowza Streaming Cloud web manager.
2. Select the stream on the **Live Streams** page in Wowza Streaming Cloud.
3. Do one of the following:
   - Click **Start Live Stream** at the top of the live stream detail page.
   - Click **Start your live stream now** in the **Video Thumbnail** on the **Overview** tab.

3. Confirm that you want to start the stream.

**Important:**
- After starting the live stream, make sure to start your video source, as well.
- It may take about a minute for the stream to connect and the preview to start.
- Charges begin to accrue as soon as you start your stream in Wowza Streaming Cloud, even if you haven’t started your video source yet.

---

**Stop a live stream**

1. Select the stream on the **Live Streams** page in Wowza Streaming Cloud.
2. Click **Stop Live Stream** at the top of the live stream detail page.

**Important:** Remember to stop your live stream when your event ends. Transcoding charges accrue for started live streams even if they aren’t actively streaming content. Wowza Streaming Cloud automatically stops...
idle pay-as-you-go live streams after 20 minutes, but you should stop your stream as soon as your event ends to avoid accruing unnecessary charges. You can instruct Wowza Streaming Cloud to stop the transcoder for inactive, pay-as-you-go streams sooner than 20 minutes by changing the Idle Timeout value on the Transcoder Setup page. See the user guide topic Edit a transcoder’s settings, outputs, or targets.

View live stream details

1. Select the stream on the Live Streams page.
2. Click a tab on the live stream detail page to see relevant information.

Live Stream Overview

The Overview tab of the live stream detail page displays:

- **Video Thumbnail** – When the stream is running, the Video Thumbnail displays a frame from the live stream every five seconds. If the stream has started but Wowza Streaming Cloud isn’t receiving any source video, the message “No video detected” appears in place of the video frame. At the bottom of the thumbnail, a date/time stamp indicates when the stream began.
- **Statistics** – Real-time connection, transcoding, and delivery details appear for running streams.

All of the metrics refresh every 10 seconds. For more information about the statistics, see the user guide topic View statistics for an active stream.

**Note:** There is no video preview and there are no statistics for streams that are received from Wowza Streaming Engine and sent directly to a Wowza CDN stream target.

- **Hosted Page URL** – The web address of the Wowza Streaming Cloud hosted webpage for the live stream, if you created one. Click Open to view the page, or go to the Hosted Page tab to edit it.
- **Details needed to configure your source to connect to Wowza Streaming**
Cloud vary depending on the video source you’ve chosen. You may see:

- **Source Connection Information** – Details such as the Wowza Streaming Cloud primary server and host port, the stream name, and authentication information that you can use to manually configure and connect the video source to the live stream.

- **Connection Code** – The Connection Code can be used to easily connect Wowza Streaming Engine, Wowza GoCoder, and some Works with Wowza partner video sources to Wowza Streaming Cloud. Each code can be used once and expires 24 hours after it’s created. If the code is expired, click the Video Source and Transcoder tab to generate a new one.

- **Source URL** – The web address of the IP camera or pull-connected RTMP/RTSP device specified as the video source for the live stream.

- **Player Embed Code** – The HTML code that you can copy and paste into an external webpage to display your live stream on that page in your selected player.

- **Playback URLs** – The address that can be used to configure playback of the stream using the HLS protocol.

**Note:** For push streams, the Stream Name in the Source Connection Information table and the stream name used in the HLS playback URL doesn’t match. This is intentional and allows certain advanced custom transcoding workflows.

### Live Stream Health snapshot

The **Health** tab of the live stream detail page displays the Stream Health Monitor, which offers a graphical visualization of connection and transcoding data that can help you assess the health of the live stream. The information corresponds to some of the metrics in the Statistics panel on the Overview tab of the live stream detail page. For details, see the user guide topic View graphical health metrics for an active live stream or transcoder.

### Live Stream Setup details

The **Live Stream Setup** tab of the live stream detail page shows the Live Stream Name and the Broadcast Location.
**Note:** A **Live Stream Name** is different from a **Stream Name**. You create a **Live Stream Name** to identify the live event you’re broadcasting in Wowza Streaming Cloud. A **Stream Name** is an element of a streaming URL, such as an HLS playback URL or an RTMP connection URL. It’s typically an alphanumeric string that’s created automatically by an encoder or server.

---

**Video Source and Transcoder details**

The **Video Source and Transcoder** tab of the live stream detail page shows the hardware or software that’s providing the source video to Wowza Streaming Cloud, the information you need to use in the video source so it can connect with Wowza Streaming Cloud, and the aspect ratio, billing mode, recording, captioning, and other source details.

---

**Playback details**

The **Playback** tab of the live stream detail page shows a preview of the player, a summary of player settings, the player embed code, and playback URLs.

The **Player Preview** allows you to play and pause running streams, adjust the volume, and enter full-screen mode.

If you’re using a third-party HLS player for your stream, use the **Playback URL** to configure it to play your live stream.

---

**Hosted Page details**

The **Hosted Page** tab of the live stream detail page shows details about the Wowza Streaming Cloud hosted page, if you have one. Click **Open** to preview the hosted page. Give the **Hosted Page URL** to viewers so they can watch your event.

---

**Edit a live stream’s settings**

1. Select the stream on the **Live Streams** page.
2. Do any of the following:
Click the **Live Stream Setup** tab and then click **Edit** to change the live stream name.

For information about the settings, see [Live Stream Setup options](#).

Click the **Video Source and Transcoder** tab and then click **Edit** to change or reconfigure the camera, encoder, or connection you’re using.

For information about the options, see [Video Source and Transcoder Settings](#).

Click the **Playback** tab and then click **Edit** to change Wowza Streaming Cloud player settings.

For information about the options, see [Playback Settings](#).

Click the **Hosted Page** tab and then click **Edit** to change hosted page settings.

For information about the options, see [Hosted Page Settings](#).

3. Click **Save**.

**Note:** Some changes to the player and hosted page take a few minutes to generate. Refresh the **Playback** tab or the **Hosted Page** tab after about 10 minutes if your changes don’t appear.

4. (Optional) If you edited the settings of a live stream while it’s running and you want the changes to take effect for the active stream, click **Reset Stream**.

### Delete a live stream

A live stream can be kept and reused for future broadcasts. Or, if you don’t need it anymore, you can remove it from Wowza Streaming Cloud.

1. Select the stream on the **Live Streams** page.
2. Click **Delete Live Stream** in the upper-right corner of the live stream detail page.
Find and sort live streams

1. Click **Live Streams** on the menu bar.
   
   The five most recently used or edited live streams appear in the **Recent** panel of the **Live Streams** page. Use the **Search** box to find an older stream to view or edit.

2. Enter a complete or partial **Live Stream Name** or stream ID in the **Search** field.

   **Note:** Wowza Streaming Cloud assigns a unique eight-character ID to every live stream. The ID appears under the live stream name in the search results table. If you don’t know the ID, search by live stream name to find the ID. You can also get the ID by using the Wowza Streaming Cloud REST API.

3. Press Enter or Return, or click the magnifying glass icon.
   
   Searches return 15 results per page, sorted from the newest to the oldest items.

4. (Optional) Click the **Live Stream**, **State**, or **Last Updated** table header to change the sort option or direction of the search results.