Wowza Streaming Cloud™ – Overview

Wowza® Media Systems, LLC

February 2015

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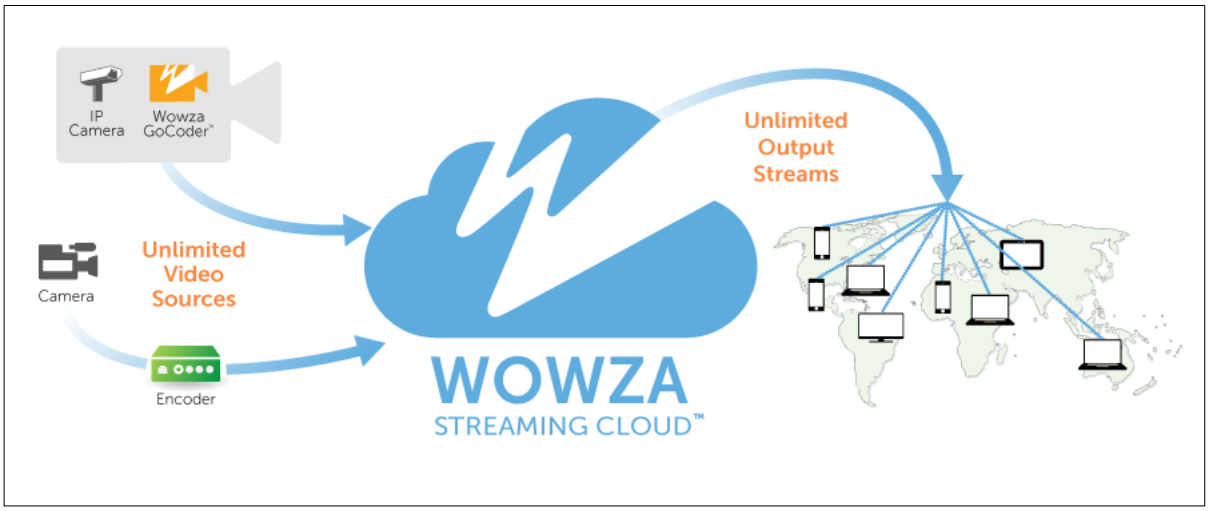
Introducing Wowza Streaming Cloud™

With professional-grade streaming from the Wowza Streaming Cloud service, you can easily broadcast live events to audiences of any size, on any device, anywhere. Wowza Streaming Cloud accepts video directly from H.264 encoders or IP cameras, transcodes your video in the cloud, and delivers adaptive bitrate streams that can be played back by using a customizable player and a hosted webpage, or on any webpage using a player that supports Apple HLS or Adobe HDS.

Using a simple, browser-based interface, tell Wowza Streaming Cloud what you're using to capture and encode your video, specify your playback options, and then let Wowza Streaming Cloud transcode the stream and deliver it to viewers. Wowza Streaming Cloud provides you with the information you need to connect with your source encoder and for your audience to watch the stream, and it performs adaptive bitrate transcoding in the cloud using Wowza® Media Systems' industry-leading software.



Wowza Streaming Cloud accepts video from a variety of H.264 sources and delivers adaptive bitrate streams that can be watched on a wide variety of players, devices, and third-party websites.

The benefits of Wowza Streaming Cloud

Professional-grade live streaming

Wowza Streaming Cloud transcoding leverages the industry-leading Wowza Streaming Engine™ software, which means you can trust it to work reliably and to produce high-quality streams. The Wowza Streaming Cloud transcoder generates multiple, adaptive bitrate streams, sending just the right stream to each viewer, whether they're watching on a computer or mobile device, over all types of connections and bandwidths. Streams play back promptly and smoothly, providing excellent, engaging viewer experiences. You don't need to pay for or maintain costly servers, and the production workflow is simplified, allowing you to focus on capturing the best possible source stream for Wowza Streaming Cloud, and letting the cloud service do the rest of the work.

Brand control

Wowza Streaming Cloud includes a bundled, customizable player and provides a hosted webpage that allows your audience to watch your streams without ads and with your own, custom branding.

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Create a personal viewing experience by including a title and logo of your choosing on the webpage. You can even include a watermark on the video in the player. Brand your live streams as your own and keep full control of the message and content that your audience sees.

Flexibility

In addition to offering a complete, start-to-finish streaming workflow, Wowza Streaming Cloud can easily integrate with existing streaming systems and solutions. Combine the service with third-party CDN resources or your own Wowza Streaming Engine deployment to create a workflow that suits your unique streaming requirements.

Advanced controls

Advanced settings let you tell Wowza Streaming Cloud exactly where and how to transcode your stream, so you can optimize your streams for specific devices and scale for global audiences. You can also send incoming streams to Wowza Streaming Cloud *stream sources,* or CDN servers, in multiple locations, increasing your transcoding resources and creating redundancy. And you can send adaptive bitrate streams to multiple *stream targets*, or destinations, to reach wider audiences. Targets can be Wowza Streaming Cloud CDN servers or any RTMP-based destination, such as YouTube.

In addition, the Wowza Streaming Cloud REST API lets you control and manage transcoding through HTTP requests. Sandbox support allows you to test API workflows in a development environment, and documentation of the REST API is available through the Swagger™ framework UI.

Note: The Wowza Streaming Cloud REST API is in preview release. Contact Wowza for information about how to access and use the REST API preview.

Pay as you go

With Wowza Streaming Cloud, you pay by the month, and you pay only for the resources you use. Easily scale up and down as needed for each broadcast. With multiple pricing plans, there's an option for every budget. No long-term commitment is required; pricing is competitive for Wowza's best-of-breed technology.

Is Wowza Streaming Cloud right for you?

Wowza Streaming Cloud is the streaming service of choice for anyone who wants professional-grade streaming at a great value. With both easy and advanced modes as well as a REST API, it's ideal for people who have a wide range of experience streaming live content and events, but who don't have the resources or aren't inclined to build and maintain a streaming infrastructure.

Live event producers, for example, may have a deep understanding of video production but more cursory knowledge of adaptive bitrate streaming. For example, live event producers may know about video production, but not how to scale for peak load or for geographically distributed audiences. For live event producers, Wowza Streaming Cloud provides an easy-to-use setup and a start-to-end solution that lets you get your live streams up and running in no time. As you gain experience and confidence, you can customize your live streams using advanced settings that let you more precisely control where and how Wowza Streaming Cloud transcodes your content.

Service providers, meanwhile, are highly proficient with H.264 encoding and adaptive bitrate transcoding. For service providers, also sometimes known as online video providers, the question is

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whether—and how—to build and maintain an internal streaming infrastructure. With Wowza Streaming Cloud, you don't have to. The service's on-the-fly scalability, pay-as-you-go model, and advanced transcoding features and API provide of all the flexibility and functionality you need to develop and grow robust streaming product offerings.

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Source and Playback Formats and Protocols

Formats and protocols—two of the biggest black holes in streaming for streaming newbies. Wowza Streaming Cloud demystifies and simplifies the issues of broadcasting live streams, from connecting with the live source stream to offering multiple, streamlined playback options.

A single source stream

When using Wowza Streaming Cloud, you create one bitrate rendition, also called a *source encode*, of the stream you're publishing to Wowza Streaming Cloud. This is the *master bitrate rendition*, if you will. Wowza Streaming Cloud uses the master rendition to create one or more renditions of equal or smaller size that it delivers to your audience. In other words, Wowza Streaming Cloud *transcodes* the stream and creates multiple, keyframe-aligned, adaptive-bitrate output renditions that play back seamlessly regardless of where the audience is watching, or what device or connectivity they're using.

H.264 source streams

Wowza Streaming Cloud accepts source streams from H.264 encoding devices, including hardware and software encoders, transcoders, IP cameras, and apps, over the RTMP or RTSP protocol. H.264 is as close to universal as any video compression format, giving you great flexibility to choose a camera or encoder that fits your operation and budget.

H.264-encoded streams can be contained in any of several types of wrapper—.MP4, .F4V, and others. Wowza Streaming Cloud accepts H.264-encoded content in an MP4 container.

- **Accepted source encode format:** H.264
- **Accepted container:** MP4
- **Accepted audio formats:** AAC, MP3

Source streams from Works with Wowza partner encoders

Wowza Streaming Cloud makes it easy to use professional encoders and video production systems as your video source. Choose a partner encoder as your live stream video source, and Wowza Streaming Cloud generates connection settings that you can use to easily configure the encoder to connect to Wowza Streaming Cloud.

Push Publishing from Wowza Streaming Engine

You can push streams from Wowza Streaming Engine to Wowza Streaming Cloud, scaling live broadcasts from Wowza Streaming Engine without investing in additional hardware or external CDN resources. Choose Wowza Streaming Engine as a video source for your Wowza Streaming Cloud live stream, configure the Push Publishing feature in Wowza Streaming Engine, and use a provided connection code to enable Streaming Engine to push the live feed to Streaming Cloud for transcoding and delivery.

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Multiple playback options

On the delivery side, Wowza Streaming Cloud sends streams to many clients and players, including those that use Apple HLS and Adobe HDS.

Hosted player and webpage

Wowza Streaming Cloud lets viewers watch live streams by using a bundled Flash and HTML5 player that can be embedded on any webpage—on your website or on a page hosted by Wowza Streaming Cloud. Configure the player and hosted webpage as you add your live stream in the Wowza Streaming Cloud browser-based manager. Then just share the hosted page URL with your audience or incorporate the provided player embed code onto your own webpage.

Adobe HDS and Apple HLS playback

If you don't want to use the bundled player—or, in addition to using the bundled player—Wowza Streaming Cloud live streams can be watched in Adobe HDS- and Apple HLS-compatible players.

The Adobe HTTP Dynamic Streaming (HDS) protocol lets live streams be viewed in Adobe Flash Player 10.1 or later. The Apple HTTP Live Streaming (HLS) protocol lets live streams be viewed on iOS devices (version 3.0 or later), in QuickTime player (version 10 or later), and in the Safari® browser (version 4.0 or later). Other Apple HLS–compatible devices include Roku® and Amino set-top boxes and some brands of smart TVs.

When you create your live stream, Wowza Streaming Cloud creates direct-playback URLs that can be used in Adobe HDS– and Apple HLS–based players.

CDN and external RTMP/RTSP targets

Through the advanced mode, Wowza Streaming Cloud can deliver transcoded streams to any player, device, or server that accepts streams over the Real Time Streaming Protocol (RTSP) or Adobe Real Time Messaging Protocol (RTMP). Targets can be CDN resources provisioned by Wowza Streaming Cloud, external CDN providers such as Akamai or Limelight, or any other RTMP host, such as YouTube.

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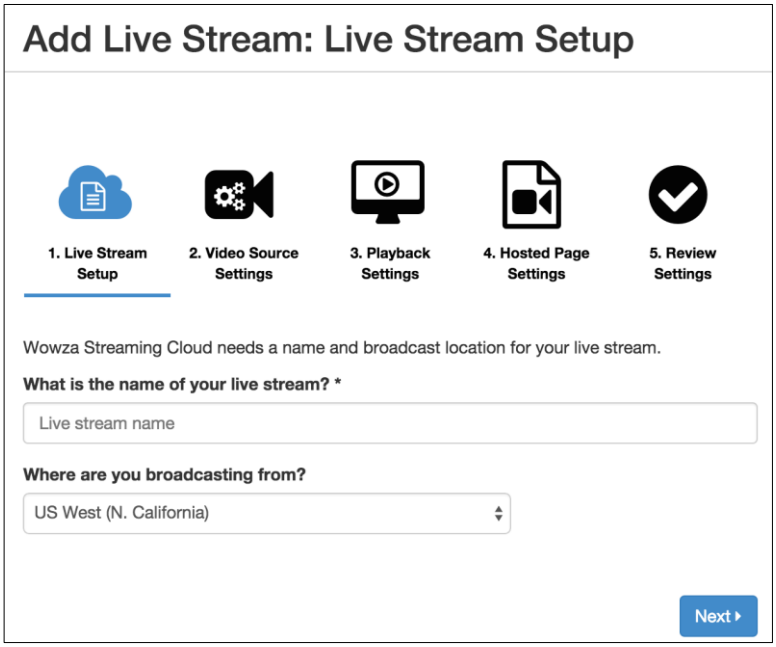
Working with Live Streams

Live streams are the heart and soul of Wowza Streaming Cloud. A *live stream* is a single, linear video broadcast. You broadcast a live stream by receiving encoded source video into Wowza Streaming Cloud and letting Wowza Streaming Cloud transcode the stream and deliver it to viewers. The browser-based Wowza Streaming Cloud manager makes it easy to create, manage, monitor, and start and stop live streams.

Easy live stream setup

In Wowza Streaming Cloud, you can create a live stream in a few easy steps. 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. Create the live stream, connect Wowza Streaming Cloud to your video source, and you're ready to stream.



You create a live stream in Wowza Streaming Cloud by completing a friendly, straightforward five-step wizard.

Stream monitoring and usage tracking

Wowza Streaming Cloud offers many tools for managing and monitoring your live streams.

When a stream is active, Wowza Streaming Cloud offers a video preview and up-to-date information about the health of the source stream, the transcoder, and delivery. Wowza Streaming Cloud resources are monitored continually. The preview updates every 5 seconds; source stream, transcoder, and delivery details refresh every 10 seconds.

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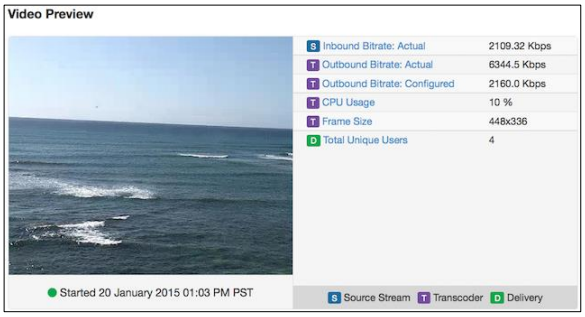
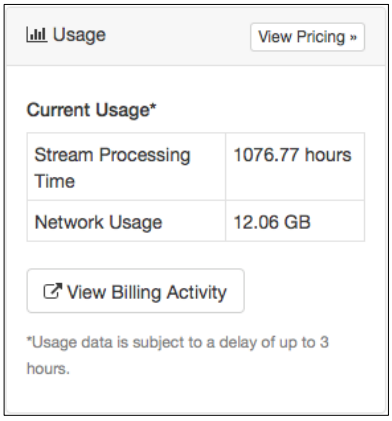


The Video Preview panel shows a frame from the live stream every 5 seconds. Detailed statistics show inbound and outbound connection rates, CPU usage, frame size, and the number of unique users watching the stream.

In addition, Wowza Streaming Cloud lets you track your usage and see charges as they accrue. The Wowza Streaming Cloud manager provides multiple ways to stay on top of how much stream processing (transcoding) time you've used and how much network bandwidth you've used, as well as to stay aware of past and current charges. You can see:

- A snapshot of all stream processing time and network usage in the account in the current billing period.
- A detailed breakdown of how much stream processing time was used and how much content was processed through the network for any individual stream, in any time period.
- A summary of all stream processing time and network usage for the account, in any time period.



The Usage panel on the Wowza Streaming Cloud Home page provides a snapshot of current usage and a link to your Wowza account for more detailed billing information.

Finally, Wowza Streaming Cloud tracks all activities that users perform and provides detailed logs that you can use as needed, such as for troubleshooting problems that may arise.

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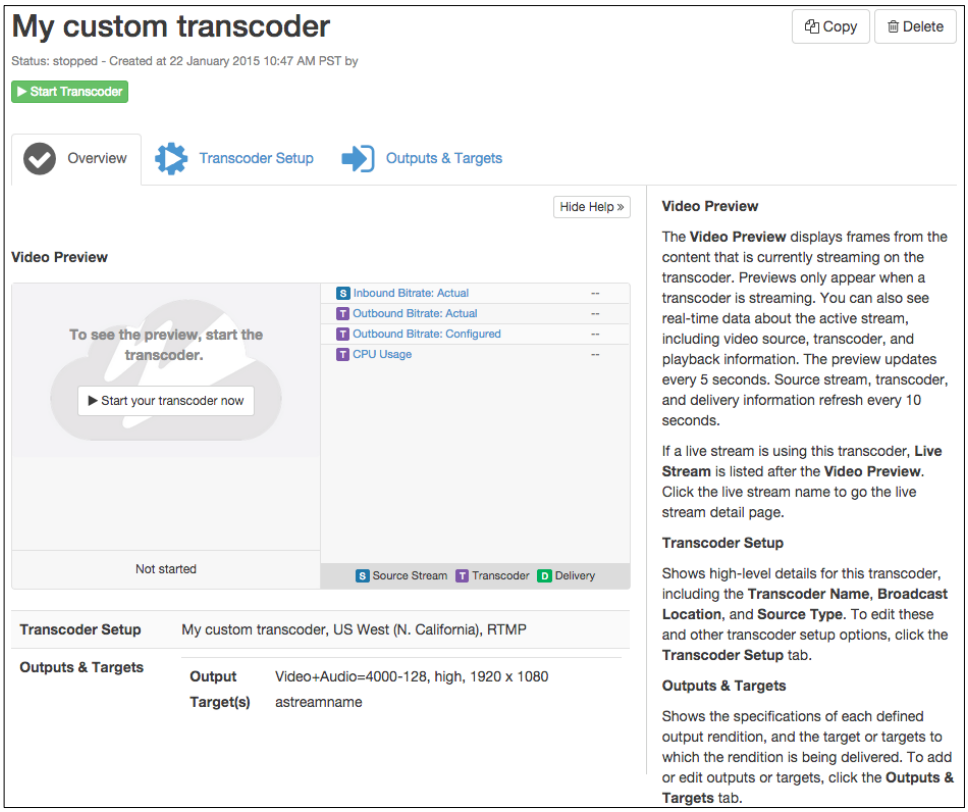
Advanced Transcoding

The advanced mode in Wowza Streaming Cloud lets you customize transcoding settings and create stream sources and stream targets so that you can create redundancy, optimize streams for specific applications and devices, and scale to larger and more widely distributed audiences.

Custom transcoding

When creating or customizing a transcoder, you tell Wowza Streaming Cloud exactly where and how to process your stream. You define how Wowza Streaming Cloud receives the stream, the number and type of output renditions you want Wowza Streaming Cloud to generate, and where Wowza Streaming Cloud should deliver each output rendition.



The detail page of a custom transcoder in the Wowza Streaming Cloud manager.

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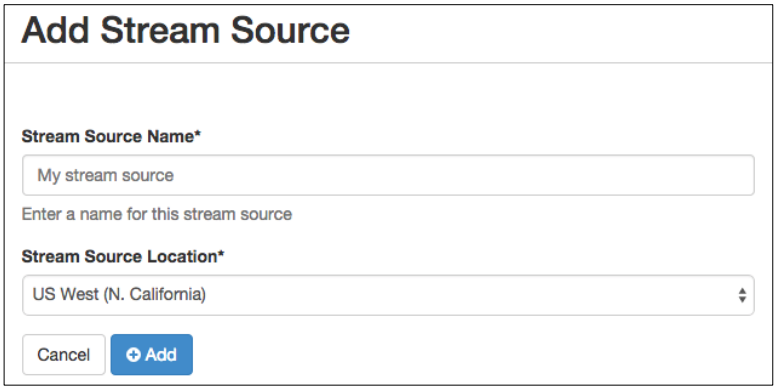
Stream sources

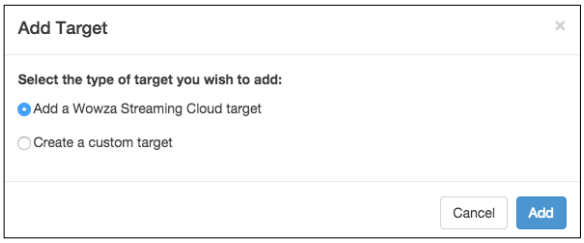
You can add Wowza Streaming Cloud stream sources to transcoders, creating a layer of redundancy that is important for mission-critical streaming workflows. If one source stream fails, Wowza Streaming Cloud continues to receive and transcode source video on the additional, backup stream source, which is basically a second CDN (distributed) server, ensuring that playback continues uninterrupted for your viewers. In addition, when you use multiple stream sources you can restart one of your transcoders while your stream continues to run on the other, again without disruption to your viewers.



Adding a stream source in the Wowza Streaming Cloud manager is as easy as giving the source a name and specifying its location.

Stream targets

In advanced mode, you can create two types of targets for your streams. The first is a target provisioned by Wowza Streaming Cloud. Provisioned targets are essentially CDNs, or distributed servers, that increase the processing power and capacity of your delivery resource. The second type of target is a custom target. Custom targets can be any external destination that can receive an RTSP or RTMP stream from Wowza Streaming Cloud; for example, a third-party CDN or a video-sharing platform such as YouTube. Both types of targets allow you to scale and add redundancy to your transcoding workflow.



In advanced mode, you can add targets that are provisioned by Wowza Streaming Cloud or are custom, third-party destinations.

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Pricing and Support

This section provides the pricing and support information you'll need to plan your Wowza Streaming Cloud deployment.

Pricing options

Wowza Streaming Cloud offers both a free trial and pay-as-you-go licensing, with plans for a variety of streaming needs.

Free trial

The Wowza Streaming Cloud free trial provides 30 consecutive days of access to Wowza Streaming Cloud. During this period, you can use up to 5 hours of stream processing (transcoding) time and up to 10 concurrent viewers can watch a live stream. For other limitations, see Wowza Streaming Cloud release notes. To get the Wowza Streaming Cloud free trial, go the Wowza trial page.

Monthly license

With Wowza Streaming Cloud monthly licensing plans, you pay for two resources: stream processing time and network usage.

Stream processing time is time that a stream uses the Wowza Streaming Cloud transcoder.

Network usage is the amount of content that Wowza Streaming Cloud receives from all video sources and delivers to all players, direct-playback URLs, and targets. Network usage includes *egress*, which is data that is sent between Wowza Streaming Cloud and external networks.

For details on monthly license plans, visit Wowza Streaming Cloud pricing.

Support plans

One size doesn't fit all when it comes to technical support. Wowza Streaming Cloud has support packages that fit most support scenarios. For details see the support policy.

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Summary

Wowza Streaming Cloud is the professional-grade service for live streaming to audiences of any size on any device—directly from a camera or encoder. Reach global audiences with high-quality, custom-branded videos—no additional infrastructure required. Power users get the utmost control and flexibility with customized APIs and advanced options, while preconfigured settings help both new and experienced users get started in minutes. Wowza Streaming Cloud is cost-effective, with no-commitment, pay-as-you pricing for video delivery to anyone, anywhere.

Resources

- Get up-to-date product information about Wowza Streaming Cloud.
- Find out more about Works with Wowza partner support.
- Visit the Wowza Streaming Cloud Support forum to get answers to technical questions.
- Read the Wowza Streaming Cloud User's Guide (PDF).
- Learn how to perform many common tasks by reading our Support how-to articles.

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