Real-time video streaming: Who Needs It and Why?

Did you know that not all live video streaming is created equal? And the event that you thought you were watching “live” may actually have happened over a minute ago?

That’s because the most popular live video streaming protocols such as HLS and RTMP, whilst often described as “real time”, are subject to encoding, transmission and then decoding. Each of these processes introduces a delay before you get to feast your eyes and ears on the glorious content.

Now, live streaming video in this way is an incredibly effective and low-cost way to distribute a message to a wide audience. Whether they are on PC, Mac or their smartphone, this kind of live streaming lets your message reach a global audience simultaneously. However, due
to the different processes involved, the delay can be anything from 15 seconds up to 90 seconds – a whole minute and half after the original event.

When only real time will do

That makes live video streaming using HLS or RTMP a no-go for use cases where real-time interaction is key. In these cases, anything other than real-time video streaming would severely impact the user-experience and could even render the whole thing unviable.

Let's have a look at some of those use cases where only true real-time video streaming will cut it.

Online Auction

If you've ever seen an auctioneer in full flight, you'll know that those guys waste no time. With bids coming in thick and fast for the most popular items, audiences and bidders alike stay super focused in order to keep track of the rising price, and everyone enjoys the thrill of the chance to put a last minute bid on that once-in-a-lifetime item.

So when the auction moves into the virtual world, the same speed, pace and responsiveness is crucial to maintaining the atmosphere. For bids to come in and to be acknowledged fairly and accurately by the auctioneer, only real-time streaming will do.

Auction houses are using TokBox real-time streaming solutions to expand their customer base around the world and attract more bids while still retaining the same sense of excitement as their physical showrooms.

Interactive Webinars

To have a great experience with an interactive webinar, real-time video streaming is a must. Otherwise, conversation, questions, answers and arguments become disjointed – a bit like when you see a live TV news broadcast with a big time delay between studio and reporter.

With no delay between a presenter and the audience, it's easy to bring audience members into the main event to ask questions or to contribute to the discussion without missing a beat and for everyone else watching the switch is seamless and fluid.

Giles Bertaux, CEO of webinar platform Livestorm, hits the nail on the head:

“Hosting real-time webinars is critical to our end users. Webinars are all about engagement. The more you engage your attendees the more likely they are to convert. This is not something you can do with a 30s latency. TokBox really helped us build the webinar software our customers needed.”
Education

As any teacher will tell you, it’s hard enough to keep a class in order as it is, without thinking about the complications of adding a virtual classroom setting. For Virtual Instructor Led Training (VILT) to be effective, communication needs to be instantaneous. This way, the teacher can coordinate lively topic discussions, practice fluent foreign language conversations and mediate debates among a large group of students. It’s also a great way to bring in a panel of experts from around the world to participate in the same conversation, and reach a large audience.

It’s easy to see why education businesses turn to LearnTron, as the platform provides an easy way to set up a robust virtual classroom environment, with all the interactive features necessary at scale.

Social Interactive Broadcast

The world of social media and online communities continues to grow and evolve – and live video is increasingly a part of that. For building relationships, nothing beats real time. Kickstarter Live is a great example of how live video can enable great relationship building. This social interactive live streaming application allows product developers to have real conversations with their current and potential
crowdfunding backers. Product developers get to share their passion with a wide audience, and backers can easily jump into the conversation to ask questions. Trust is a huge element of crowdfunding campaigns, and Kickstarter Live is helping to foster that trust which leads to more successful campaigns.

**Sports Media and Entertainment**

Wouldn’t you jump at the chance to speak directly to your favourite sports star? The MLB knows that its fans love the opportunity to ask a question or just chat to a hero, and their real-time interactive streaming app allows just that.

While other live streaming protocols allow the show to go out to a large audience, it’s the real-time communication which makes the format work, with a producer bringing fans on and off stage whenever needed, and not a moment’s delay in sight!

**Interactive Gaming**

Gaming is a huge industry online, but everyone knows it’s more fun when it’s a social activity. And timing is absolutely critical for the gaming experience. So anything other than true real-time streaming won’t do.
While we see lots of different kinds of games using real-time streaming, a great example would be an interactive quiz show game. Imagine participating in Who Wants to be a Millionaire, without ever having to leave your sofa!

Have your cake and eat it

So clearly real-time streaming is a must-have for lots of use cases. With the TokBox interactive broadcast API, up to 3000 viewers can connect with minimal latency to the same session.

But we know that you are more ambitious than that, and anyway some of your audience is just there for the show and isn't going to get involved. That's why we allow you to combine the best of both worlds, by combining large audience real-time streaming with even larger audiences via HLS or RTMP.

The future of real-time streaming

We’re really excited about how we are seeing our customers use the real-time video streaming capabilities of OpenTok, but we know we’ve only scratched the surface.

We’re continuing to push the boundaries of how many participants we can have connected in real-time and we’re constantly exploring new technologies and endpoints which we believe will have a big impact on live streaming.

If you’ve got an idea for a real-time video streaming application, why not check out the information we have here and sign up for a free platform trial here.

Please fill out the form and we will be in touch with you shortly.

1.844.324.0340

First Name

Last Name

Email Address

Phone Number

Are you a Developer?

Company Name

Select Country

Product of Interest
Existing traffic to switch?

Message (optional)