LIMELIGHT VIDEO ACCELERATION

Certain live video streaming use cases require that end user viewers are able to watch video as close to real-time as possible, and importantly, that there is consistency on stream latency across different viewing devices. This low-latency streaming requirement is present in a number of industries, particularly in gambling, gaming, and sports broadcasts. The importance of low and consistent latency manifests in online gambling and betting where users are in different locations wagering on the same game.

CHALLENGES DELIVERING LOW-LATENCY HTTP VIDEO STREAMS

Streaming over HTTP to deliver via HLS, DASH, HDS, or Smooth Streaming, has typically resulted in latencies of 30 seconds or more, compared to older formats like RTMP (Flash) streaming with 2-6 second latency. That’s because these are HTTP-based protocols which stream chunks of data. Because each video chunk is generated and viewed in real time, the chunk size plays a big part in latency. For example, the default Apple HLS chunk size is 10 seconds, leading to latency of up to 45 seconds, when CDN ingesting, transcoding time, and delivery are factored in.

A common technique in lowering the latency of HTTP streaming is to reduce the chunk size. Some implementations lower the chunk size to 1 second, allowing HLS and DASH to achieve latencies near RTMP. The problem facing these implementations is how to deliver these smaller chunks to their end users across the globe, while losing little time in reaching them and without risking high rebuffering rates. Traditional CDN delivery has the reach, but can introduce unwanted additional latency just to move bytes from ingest to edge.

HOW LIMELIGHT VIDEO ACCELERATION SOLVES THESE CHALLENGES

To help you achieve successful delivery of your low-latency streams, Limelight has introduced Video Acceleration, a specific set of configuration options in the Content Delivery Service designed to accelerate the delivery of dynamic manifest files and very small video chunks. Video Acceleration is targeted at organizations delivering HLS and DASH live streams from their own infrastructure as an origin for the CDN to cache fill from, and will typically be deploying a video platform to produce the Master Manifest, individual bitrate manifests, and the video chunks.

USE CASES

Organizations benefiting from Video Acceleration will typically have one of the following use cases:

- **Gambling and Betting**—Ensuring consistent reduced latency experience for end users on a range of devices.
- **Online Live Gaming (eSports)**—Scale the delivery of low-latency live video to large audiences.
- **Simulcast Live Sporting Events**—Reduce the latency difference between broadcast TV and online OTT streaming delivery.
- **Live OTT Sporting Events**—Consistent end-user experience across multi-devices for non-simulcast delivery.
BUSINESS BENEFITS

Scale Delivery of Low-Latency Live Video to Audiences—Use the Limelight Content Delivery Service to offload and accelerate delivery of small live video chunks.

Reach End Users with Consistency across Devices—Accelerating delivery of live streams ensures lower latency without compromising the efficiency of your infrastructure.

ABOUT THE ORCHESTRATE PLATFORM

The Limelight Orchestrate Platform is built upon a global, private backbone network with the speed, capacity, and availability to deliver the experiences today’s audiences demand. This industry-leading Platform includes integrated content delivery, web acceleration, origin storage, video management, cloud security, and support services. The unique combination of global private infrastructure, advanced software, and expert services surpasses other CDNs, to enable today’s and tomorrow’s workflows and put audience experience first.

ABOUT LIMELIGHT NETWORKS

Limelight Networks (NASDAQ: LLNW), a global leader in digital content delivery, empowers customers to better engage online audiences by enabling them to securely manage and globally deliver digital content, on virtually any device. For more information visit our website at https://www.limelight.com.