

LOW LATENCY FOR SPORTS OTT DELIVERY

BRINGING SPORTS VIEWING CLOSER TO LIVE

The pressure to bring viewers the same experience in live sports as they receive from traditional broadcast is rising rapidly. How are OTT providers able to deliver high quality video with the lowest latency possible, at scale?



QUALITY VS. SCALE VS. LATENCY

In the context of video streaming, viewers are demanding high quality video with the lowest latency possible. The challenge presented for most OTT providers is delivering on both quality and low latency, at scale.

OTT providers are put in a trade-off triangle, and are being forced to compromise on either scalability, latency or quality to achieve a lower glass-to-glass latency.



Desynchronisation can cause an unenjoyable viewing experience if several people are watching the same content on different devices next to each other. In sports, for example, we know this desynchronisation as hearing viewers watching traditional broadcast cheer for a goal while streaming viewers haven't seen it happen yet.

MULTI-SCREEN VIEWING WITH CMAF-CTE

So how do we fix this range of desynchronisation and deliver OTT video in 'real-time'? Achieving low latency requires changing more than just one component. Latency involves the entire end-to-end video delivery chain. In order to deliver results, you need a player that supports CMAF-CTE, or chunked CMAF and Chunked Transfer Encoding (CTE).

Low Latency CMAF also called Chunked CMAF (CCMAF) specification, which is splitting individual segments in even smaller playable chunks. With these chunks being streamed out progressively using HTTP/1.1 chunked transport, latency can be reduced even further, and current implementations show latencies as low as 3-7 seconds giving stable playback.



ACHIEVING LOW LATENCY HLS

In June 2019, Apple introduced Low Latency for HLS (LL-HLS) specification which is still in draft. Apple's protocol extension, LL-HLS, uses 'parts', which are the equivalent of CMAF 'chunks.' Much like CMAF, LL-HLS reduces latency by leveraging chunked transport for parts and by announcing segments before they are available.

LL-HLS is backwards compatible with regular HLS, which means that players that do not understand the protocol extension will playback the video content, as if nothing has changed.

LL-HLS can deliver low-latency streams for both Transport Streams and MP4 containers.

LOW LATENCY WITH THEOPLAYER

THEOplayer provides a scalable, stable, reduced latency video player solution. Discover how our universal THEOplayer can be configured to best suit your OTT needs.

With these low latency capabilities working seamlessly together the other THEOplayer features such as analytics, subtitles, content protection and DRM, preloading, and much more, bringing the best viewer experience with the lowest latency.







INTERESTED IN LEARNING MORE About low latency for ott Delivery?

Get in contact with one of our THEO experts.







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