



# Timestamps in MoQ Issue [#475](#)

IETF 121 in Dublin, November 2024

# Issues Today

Delivery Timeout and Max Cache Duration are relative to time of receipt, which is best effort

If there is packet loss or reordering, those are skewed

If a particular encoding of content takes longer to produce (ie: AV1), it never 'catches up'.

Server side ABR is impractical without timestamps

Server side ABR isn't required, but I want it

A key use case is 15 second jitter buffer for sports

## **Proposal: Add an optional timestamp**

Add an optional 'timestamp'

Likely relative to the beginning of the track

Is an actual time in some unit (likely millis?)

Instead of basing `Delivery Timeout` and `Max Cache Duration` on receipt time, base them on the timestamp

## Follow-Up: Peeps and Priorities

Once we have timestamps, use different tracks if you want strict prioritization between layers

Use peeps (aka Substreams) if you want to do '*Group Order*', then '*Peep priority*' style prioritization

This is '**Option 1**' from Monday (aka Alan's)

A client wouldn't subscribe to the enhancement layer

If it didn't have enough bandwidth or didn't want it

But today the enhancement layer isn't optional.