MoQ Transport Issues

Moq-transport

IETF 120 in Vancouver, July 2024
Should missing Objects be required? #345

Added the ability to specify missing Objects or Groups, but didn’t require their use

Can cache the fact that an Object is missing

Pros

● Makes caching easier and more efficient
  ○ Ie: Victor’s example yesterday about caching every other Object
● Can infer any missing information was dropped due to Delivery Timeout/etc.

Cons

● Consumes bytes on the wire
No Limit on Subscriptions #272

SUBSCRIBE sent on the single control stream

No limit on how many subscriptions at once

Options:

1. Add a MAX_SUBSCRIPTIONS frame and SETUP parameter, similar to QUIC.
2. Open a new bidirectional stream for each Subscription and put all control messages (ie: UPDATE, etc) on that.
3. Punt for later
Sync between tracks? #475

Currently, no way to sync between audio + video, etc

Currently, reordering and loss delays propagate

Sync of some sort allows correction at each hop

Is this something MoQ transport should provide?
QUIC Streams and MoQ

Currently: “Streams aside from the control stream MAY be canceled due to congestion or other reasons by either the publisher or subscriber. Early termination of a stream does not affect the MoQ application state, and therefore has no effect on outstanding subscriptions.”

Q1: If a subscription is cancelled or data is expired, the publisher SHOULD reset open streams?

Q2: Is there value to STOP_SENDING by the subscriber?
Stream FIN

QUIC Stream FIN (currently) indicates end of Object

Q3: Should QUIC Stream FIN mean end of Group?