

# MOQT Updates since IETF 123 (moqt-13)

All changes in -15 unless noted

# Object Model

End of Group or End of Track Objects cannot have extensions

More refinements coming to Object Status, see [#1342](#)

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Explained how to resume publishing after losing state in Object Model compatible manner

# Protocol Negotiation and Setup

**ALPN at last!** - removed version negotiation from SETUP

WebTransport uses new WT-Available-Protocols

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**MOQT Implementation** - a “User-Agent”-like setup param

Whom to call when you find a bug

# Control Plane Changes

**Paramarama** - Moved a number of fixed fields in messages to Key/Value parameters

Subscriber Priority, Group Order, Subscription Filter, Forward,  
Expires, Largest Object

**REQUEST\_ERROR** - A single message instead of 6 with the same format

**REQUEST\_OK** - Same idea, but only for 3 messages. Fixed fields remain in  
SUBSCRIBE\_OK, FETCH\_OK and PUBLISH\_OK.

**SUBSCRIBE\_UPDATE acknowledgements** – uses REQUEST\_OK / ERROR

## Renaming



ANNOUNCE → PUBLISH\_NAMESPACE

SUBSCRIBE\_DONE → PUBLISH\_DONE

# Control Plane Features

## SUBSCRIBE\_NAMESPACE Forward=0 vs Forward=1

- Subscriber specifies a default for new subscriptions in the namespace
- Gives the subscriber more control over what Objects come from the Relay
- More changes likely from Filter Design Team

## NEW\_GROUP\_REQUEST

- Subscriber can ask for a new group
- Track Publisher has to opt-in (DYNAMIC\_GROUPS)
- Relays have deduplication logic

## Widening Subscriptions

- SUBSCRIBE\_UPDATE can extend the end of a filter
- Open PR to move start back as far as Largest ([#1323](#))

# Data Plane Changes - Compression

Delta Encoded Object IDs in a Subgroup 

Also eliminates invalid encodings. Also coming to Key/Value pairs near you ([#1315](#))!

PUBLISHER\_PRIORITY 

Publisher can set Track priority in control plane, omit/override from data plane

Datagram per group doesn't need Object ID 

→ Minimum MOQT overhead for DATAGRAM now 3 bytes {type, alias, group}

FETCH

Metadata overhead dramatically reduced

Each object can omit fields that are the same or +1 previous

We're running out of data plane compression ideas, maybe we're done with them?

# Immutable Extensions

Defined a mechanism that can be used for e2e authentication of object extensions

These extensions are serialized in their own block, which is added as the “value” of the Immutable Extension

Relays can view this metadata, but cannot modify

Stay tuned for “Private” Extensions in Secure Objects presentation



# Modularity and Relay Handling

Applications can use the subset of MOQT that make sense for them

**Relays MUST** implement everything, including the all the Relay rules

Relays **MUST** support > 1 concurrent publisher for the same track/namespace

For FETCH, Relays can pick *any* publisher if they need to go upstream

Relays generally don't end subscriptions based on filters

Clarified how namespace prefix matching works



# Current Issue Status

<b>NotTransport</b>	<b>Parked</b>	<b>Has PR</b>	<b>Editorial</b>	<b>Needs PR</b>	<b>Needs Discussion</b>	<b>Triage</b>
6	31	17	36	12	14	6

**Total: 122**

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↑ Close		↑ Review	↑ Write		↑ Opine	

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