

# IETF 118 QUIC WG

8 November 2023

This session is being recorded

IETF 118 Prague

# Note Well

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/>(Privacy Policy)

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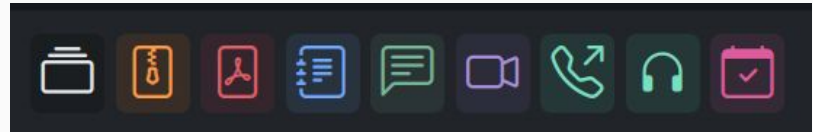
# IETF 118 Meeting Tips

## In-person participants

- Make sure to sign into the session using QR code or “Onsite tool” link from the Datatracker agenda
- Use Meetecho to join the mic queue
- *Keep audio and video off if not using the onsite version*

## Remote participants

- Make sure your audio and video are off unless you are chairing or presenting during a session
- Use of a headset is strongly recommended



# Administrivia

- Note takers
  - <https://notes.ietf.org/notes-ietf-117-quic>
- Blue sheets - Meetecho
- Chat
  - Meetecho/Zulip
- Chairs will run the queue

# Agenda

- Chair updates (10 min)
- WG Items
  - Multipath (25 min)
  - Reliable QUIC Stream Resets (15 min)
  - QLOG (15 min)
- Other Items
  - NAT traversal (15 min)
  - ACK receive timestamps (10 min)
  - QUIC BDP frame (5 min)
  - FEC - Francois Michel (5 min), Huawei (5 min)

# Updates since last meeting

- ACK Frequency WGLC
  - Ends on November 27

# Errata report(s)

- Errata [ID 7578](#)
  - Demultiplexing QUIC
  - [List discussion](#)

# Demux - QUIC Bit

(0x40) of byte 0 is set to 1, unless the packet is a Version Negotiation packet. Packets containing a zero value for this bit are not valid packets in this version and MUST be discarded. A value of 1 for this bit allows QUIC to coexist with other protocols; see [RFC7983].

```
Long Header Packet {  
  Header Form (1) = 1,  
  Fixed Bit (1) = 1,  
  Long Packet Type (2),  
  Type-Specific Bits (4),
```



# Demux - QUIC Bit and Version Negotiation packets

Where QUIC might be multiplexed with other protocols (see [RFC7983]), servers SHOULD set the most significant bit of this field (0x40) to 1 so that Version Negotiation packets appear to have the Fixed Bit field. Note that other versions of QUIC might not make a similar recommendation.

```
Version Negotiation Packet {  
  Header Form (1) = 1,  
  Unused (7),
```

# Demux - RFC 9443

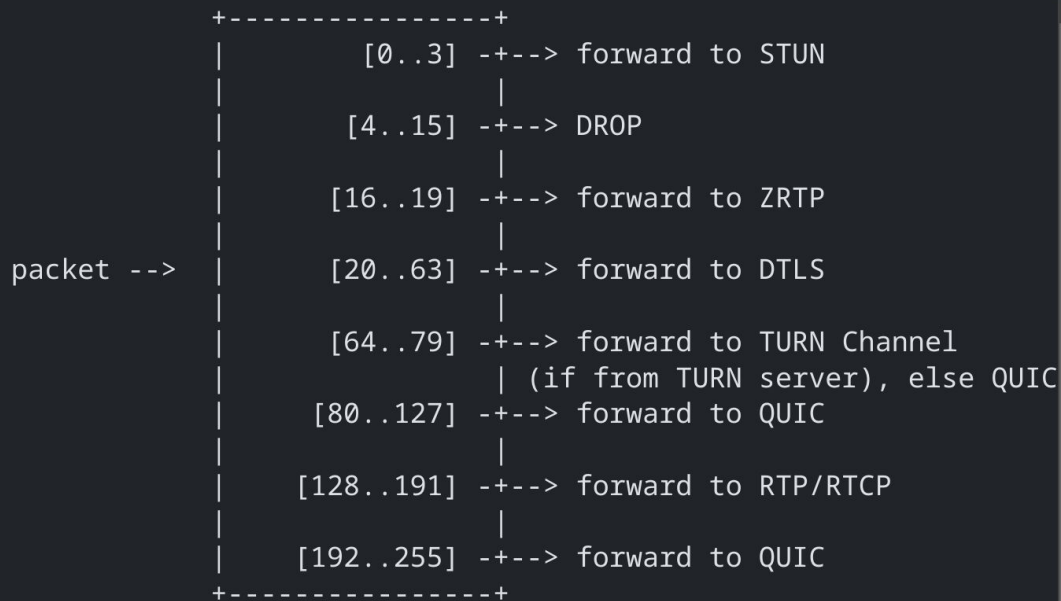


Figure 3: The receiver's packet demultiplexing algorithm.

# Problem

Server can't know what the client is muxing when it sends Version Negotiation

# Proposed solutions

1. Change RFC 9000 to: always set 0x40 to 1 (e.g. remove "where QUIC might be multiplexed with other protocols" subclause
2. Change logic in RFC 9443 to: 128..191 are only routed to RTP/RTCP if the next 4 bytes are not equal to 0.
3. Change RFC 9000 to: MUST set 0x40 to 1 unless OOB knowledge
4. Change RFC 9000 to: SHOULD set 0x40 to 1 unless OOB knowledge