SIP-over-QUIC

Context

- A mapping of **Session Initiation Protocol** (SIP) semantics over **QUIC Transport**
- Design inspired by **HTTP/3**
- Original idea was born from work on my QUIC RTP Tunnelling draft
- Sending live media over QUIC is an active topic, including the new Media-over-QUIC (**MoQ**) WG.
- Possibility of reusing SIP semantics to convey **control metadata** about media sessions using SIP offer/answer
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System design

• Design **inspired by HTTP/3** allows potential reuse of lots of existing HTTP/3 stack development
• Intention to allow for media sessions to reuse the QUIC transport connection initiated by a SIP-over-QUIC session to send media in the same encrypted tunnel
• Deliberately doesn’t choose a media transport type to allow for flexibility

• **DATA** frames are compatible with H3
• **HEADERS** frames feature QPACK compression
• Use of both client- and server-initiated bidirectional streams for sending SIP request messages
• Decouples the UAC and UAS from the QUIC client and server model
• Unidirectional stream types reserved for **media transport**
• **Datagrams** also available
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What next?

- Internet-Draft is ready and will be posted as soon as the datatracker is accepting new submissions again
- Happy to accept any and all feedback
- Which working group is the best avenue to continue this work?
  - SIPcore?
  - AVTcore?
  - MoQ?
Thank you for listening

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