

3GPP Access Traffic Steering Switching and Splitting  
(ATSSS) - Overview for IETF Participants  
IETF 108 Update  
*(draft-bonaventure-quic-atsss-overview-00)*

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# ATSSS, MPTCP, and QUIC

- 3GPP "Access Traffic Steering Switching and Splitting" service
  - Terminal and network policies allow selection and use of multiple paths
  - Rel. 16 differentiates ATSSS-LL (Ethernet/IP) and -HL (MPTCP Proxy)
  - Simultaneous use of multiple paths only supported for -HL, not -LL
  - Traffic moving from TCP-centric to broader mix (including UDP, QUIC)
  - 3GPP focus on support splitting for non-TCP traffic in future
  - 3GPP is looking at QUIC in Release 17, and [asked to be kept informed](#)
- Draft authors want to work on IETF protocols in the IETF
  - Produced this overview as part of a conversation about what's needed
  - Nothing in this draft or in this presentation is "formal requirements"

# Feedback on QUIC mailing list so far (thank you)

- Does the ATSSS problem really need to be solved "in the network"?
  - [Matt Joras](#)
- Primary design goal for MPQUIC is end-to-end, and includes privacy
  - [Christian Huitema](#)
- Is there a need for MPQUIC and ATSSS as well?
  - [Roland Zink](#)
- Concerns about delay and throughput vs. end-to-end QUIC
  - [Lars Eggert Wearing No Hat](#), amplified by [Ted Hardie](#)
- How close is QUIC with connection migration to what you need?
  - [Christian Huitema](#)

*Discussion to continue on QUIC mailing list*

# Update from 3GPP SA2#139 in June, 2020

- The current study draft in 3GPP is available at:
  - [http://www.3gpp.org/ftp/tsg\\_sa/WG2\\_Arch/Latest\\_SA2\\_Specs/Latest\\_draft\\_S2\\_Specs/23700-93-020.zip](http://www.3gpp.org/ftp/tsg_sa/WG2_Arch/Latest_SA2_Specs/Latest_draft_S2_Specs/23700-93-020.zip)
- Four proposed solutions were accepted for further consideration
  - QUIC tunneling
  - MPQUIC tunneling
  - QUIC proxy
  - MPQUIC proxy
- There are race conditions between 3GPP and IETF
  - Unreliable datagrams, MPQUIC, support for IP traffic in MASQUE