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
  - Release 16 carries Ethernet (ATSSS-LL) and TCP traffic (MPTCP proxy)
  - Simultaneous use of multiple paths supported for TCP, but not Ethernet
  - Release 16 uses MPTCP proxies to accommodate non-MPTCP servers
  - Traffic moving from TCP-centric to broader mix (including UDP, QUIC)
  - 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 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
- 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