MPTCP – Multipath TCP

WG Meeting
22nd July 2019
Montreal, Canada

Philip Eardley
Yoshifumi Nishida
• Note taker
• Jabber
• Please say your name at the mike
• Please include “-mptcp-” in your draft names
• Blue Sheet!
Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

• By participating in the IETF, you agree to follow IETF processes and policies.

• If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.

• As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.

• Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.

• As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this.

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)
Agenda

1. Chairs – WG Status etc
   1. RFC6824bis has completed IESG review. Now with IANA

2. Implementation news
   1. Open mike for implementation news

3. Individual drafts
   1. MPTCP Robust session establishment – Markus Amend
   2. MPTCP inactivity time option and Rate-limit option – Viet-Hoang Tran (remote)
   3. Privacy threats and possible countermeasures for Multipath-TCP – Marcelo Bagnulo

4. Potential future topics for WG
   1. Brief summary
   2. Open discussion
   3. Note: tsvarea “Where to do multipath work in the IETF?” (15:50-17:20 Thursday)
Future of WG

• The default is that the WG closes at ~ IETF-106...
  • Minor extensions & maintenance would be done in tcpm
• ... but the WG can continue, if there are active items
  • Multiple people interested (to design, document and review)
  • People to implement
• As a data point, the next slides lists active individual drafts
  • In addition, there are several expired drafts that people may want to re-activate
Active individual drafts

• (*) Multipath TCP extension for Robust Session Establishment
  • Markus Amend (DT). Proposal for better efficiency. Request for implementers

• Initial-Path Selection for Connection Establishment in Multipath TCP
  • Jiao Kang (Huawei). Similar problem to previous draft

• (*) Privacy threats and possible countermeasures for Multipath-TCP (MPTCP)

• TFO support for Multipath TCP
  • Sebastien Barre (UCLouvain) (Tessares, Apple). Proposes mods to MPTCP so works well with TFO

• 5G Session Continuity Support in MPTCP
  • Xavier de Foy (InterDigital) (Huawei). Identifies inefficiencies for 5G session continuity & possible solutions

• (*) Multipath TCP Inactivity Time Option
  • Viet-Hoang Tran (UCLouvain). Proposes MPTCP option for lifetime for inactive MPTCP connection

• (*) Multipath TCP Subflow Rate Limit Option
  • Viet-Hoang Tran (UCLouvain). Proposes MPTCP option to request max subflow rate

• Extended Socket APIs to control subflow priority in Multipath TCP
  • Samar Shailendra (TCS) (IIT Kharagpur). Proposes to extend socket API.

• One Way Latency Considerations for MPTCP
  • Fei Song (Beijing Jiaotong University) (Huawei). Proposes to measure one-way latency to help scheduling

• A Stochastic Optimal Scheduler for Multipath Transmission Control Protocol (MPTCP)
  • Changqiao Xu (Beijing Uni, BUPT). Proposes new scheduler

• (*) presented today