Progress on Accurate Data Scheduling by Server in MPTCP

draft-kang-tcpm-accurate-data-scheduling-by-server-01

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IETF-109, TCPM WG, November, 2020
Changes Since IETF-108

• draft-kang-tcpm-accurate-data-scheduling-by-server-01 has been submitted
  Update description of the use cases
  Update definition of MP_Navigation Option
  Data Scheduling on client when receiving MP_Navigation will be considered later
  Security will be considered later

• Key Points in TCPM Mail List Discussion
  What are the advantages comparing to MP_PRIO?
  How about data Scheduling on client when client and server have conflicting/different strategies?
  How to implement such kind of a logic?
  This could also serve as input for Multipath QUIC.
Update the Description in Use Cases

Scenario 1: Network fault prevention

Scenario 2: A new network interface is added on server during a MPTCP session

Scenario 3: Value-added services

Scenario 4: MPTCP server hopes to adjust traffic to a specific subflow because of the changes in network cost
Update the Definition for MP_Navigation Option

Subtype: a new subtype should be allocated to indicate MP_Navigation Option.

Address ID: the address ID of target network Interface.

Flag ‘r’: reserved.

Flag ‘R’:
- value = 0, server requests client to perform traffic switching.
- value = 1, server requests to cancel previous navigation setting.

Flag ‘E’: exists to provide reliability for this option.

Flag ‘B’: indicates whether the subflow over which the option is received is a backup one.
Next Steps

1. Data Scheduling on client when receiving MP_Navigation will be considered.

2. Security will be considered.

3. Demo will be arranged if required (but cannot promise the timeline for this work).