MPTCP Protocol

draft-ietf-mptcp-multiaddressed-07

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WGLC Complete

• Thanks to Christoph Paasch for detailed comments and discussion
Recent Technical Changes

- -03 to -04: added path ID to MP_PRIO
- -05 to -06: added Fast Close (MP_FASTCLOSE) mechanism
Fast Close Mechanism

• Derived from long-running discussion with Georg Hampel, started in Quebec
• Analogous to (ab)use of TCP RST as ‘Fast Close’
  – i.e. allow instant drop of state for all subflows
  – Says “no more data will be accepted for this subflow”
• Mechanism:
  – Host A sends ACK+MP_FASTCLOSE on one subflow, and RST on remainder
  – Host B responds with RST on subflow
  – Upon receipt of RST in this situation, or of another MP_FASTCLOSE, Host A tears down state
  – Host A SHOULD retransmit MP_FASTCLOSE if not RST is received in one RTO
Various Clarifications

- Notably:
  - Clarified retransmissions and ACK mechanism for MP_CAPABLE and MP_JOIN exchanges
    - Revert to TCP three-way-handshake
    - Reverted changes of presence of keys
    - Clarified when to send data on new subflows
  - Clarified negotiation of checksums
  - Clarified rationale for DATA_ACK
  - Clarified fallback mechanisms: rationale and scenarios
Next steps...