MP-DCCP progress

draft-ietf-tsvwg-multipath-dccp-06

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LIFE IS FOR SHARING.

Draft maturity state

Author's freezed feature state already with -04.

Work from/with external reviewers led to major update cumulated in -06 version

Remaining minor work

- Include editorial suggestions from Simone's review
- Include editorial suggestions from IANA review

Main changes since IETF114 (-05 → -06)

Editorial: #111, #114, #115, #116, #117, #143

Define order of MP_HMAC and associated MP option #112

Mp prio len #128

Clarification HMAC belonging to MP_JOIN procedure triggers fallback #136

MP_CONFIRM triggered by valid receipt of an MP option requiring confi... #137

Add recommendation for releasing Address ID #139

Update MP_CONFIRM to use MP_SEQ #138

Update references in Operation Overviews #148

Optimize wording for MP_ADDADDR w/o specified port #150

Change MP_PRIO to be path specific #151

Conisten Length field across MP suboptions #156

address UDP and non-TCP traffic suitability of MP-DCCP #152

clarify policy for key type assignment #154

added suboption for experimental use #153

clarification on amount of addresses needed and that path management ... #145

version number entry detailed in IANA section #146

added IANA considerations for future suboptions #147

Specify MP_RTT usage #149

Implementation specific proposal to limit number of paths #157

Notification of peer why path was discarded #158

Informative guidance when not to send MP_ADDADDR #159

Characterise subflow to use unique 4-tuple #144

Full Changelog: draft-ietf-05...draft-ietf-06

Comparison draft status and prototype

Ready

Function/Mechanism	Draft	Prototype
Handshaking	☑	☑
MP Capable Feature	☑	☑
MP_KEY	☑	— *MP_KEY is implemented, but only "plain text" type is supported.*
MP_SEQ	☑	☑
MP_HMAC	☑	☑
MP_RTT	☑	☑
MP_JOIN	☑	☑
MP_ADDADDR	☑	☑
MP_REMOVEADDR	☑	☑
MP_PRIO	☑	☑

Ready

Function/Mechanism	Draft	Prototype	
MP_CONFIRM	☑	☑ Impl.	PR#26
Fallback mechanism	☑	☑ Verified	
MP_FAST_CLOSE	☑	☑ Impl.	PR#27
MP_CLOSE	☑	☑ Impl.	PR#27

> Implementation completed
>
> Interoperability verified

☑ Finalized, ready for review/testing
— Work on, contribution is welcome
✖ Not implemented, contribution is welcome

Summary

Xiaomi implemented MP-DCCP in Android 13, see presention before this. For this they

- ported MP-DCCP Linux reference implementation based on 5.10. Kernel solving multiple issues
- verified code matches MP-DCCP specification
- Run successful interoperability tests between Android 13 and DT hosted MP-DCCP proxy using Kernel 4.14 based MP-DCCP implementation

Wireshark MP-DCCP dissector available

- Improved during Hackathon -> PR#1

WGLC requested on TSVWG mailing list

Move from EXP to PS requested on TSVWG mailing list