MP-DCCP progress

draft-ietf-tsvwg-multipath-dccp-07

Markus Amend on behalf of the authors, TSVWG @IETF116

LIFE IS FOR SHARING

Draft maturity state

- ✓ All reviews accomplished and included.
 - ✓ Simone's review completed
 - ✓ "IANA Considerations" section reviewed and coordinated with IANA.

✓ Continued use of Linux reference implementation by multiple parties shows reliable protocol specification.

Initiated discussion to move draft from EXP to PS track on <u>TSVWG mailinglist</u>

Main changes since IETF115 (-06 \rightarrow -07)

Correct MP_PRIO figure to include prio value #164

Define clearly MP_CONFIRM's "List of confirmations" #173

Introduce CCID Framework #175

IANA review update 1 #186

IANA review update 2 #187

#170 nits and etc #176

Clarify what is out of scope #189

adapted wording in abstract/intro #165

Add error handling for specific suboptions #177

Example of concatenating MP options with multiple MP_HMACs #174

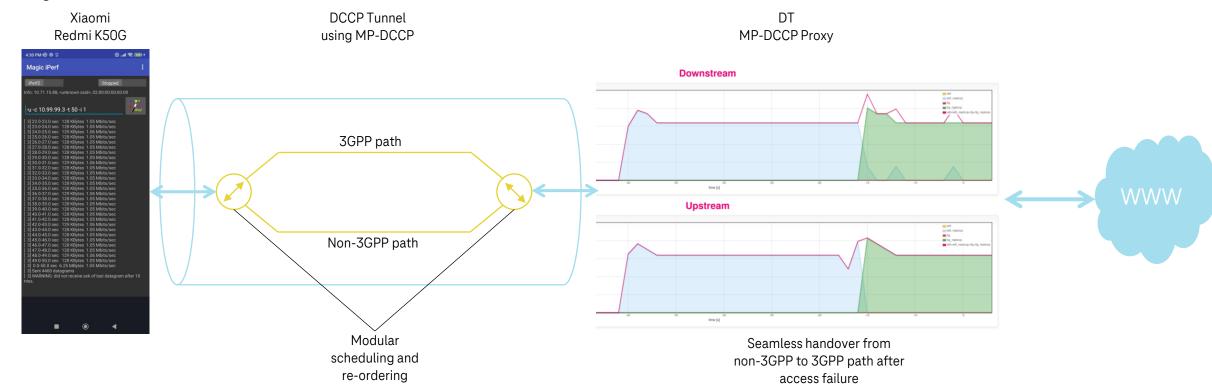
Full Changelog: draft-ietf-06...draft-ietf-07



ATSSS use case implementation with Xiaomi

Enhancement of presented interoperability tests at <u>last IETF</u>. MP-DCCP is now combined with new Linux Kernel DCCP tunnel implementation to provide Steering, Switching, Splitting to all services on a smartphone.

All Internet communication is tunneled via DCCP, which is split between the smartphone and the proxy via a 3GPP and a non-3GPP path using MP-DCCP.





EXP to PS – Textproposal

AD's suggested at IETF 115 several different <u>steps</u> to change from EXP to PS. Authors selected Step 4b: 4b. Another would be a PS document with a <u>section concurrency that says</u>, in some way, <u>implementers</u> <u>SHOULD NOT do this</u> unless they know what they are doing, perhaps outlining how this can be dangerous if you don't understand your traffic, etc.

The authors therefore created a new Section 3.9 "Path Utilization Strategies" and posted it on the TSVWG mailing list for discussion, with Section 3.9.2 in particular addressing Step 4b.

3.9.2 Concurrent path usage

This method could be used to support a concurrent path utilization strategy, which allows multiple path resources to be aggregated for higher throughput. Compared to the path mobility strategy, the selection of DCCP flows is a per-packet decision and part of the multipath scheduling process which is out of scope of this specification. Concurrent path usage over the Internet can have implications. The choice of (coupled) congestion control, scheduler, and possible reordering function has performance and fairness consequences. Since this needs further investigation, it is recommended that concurrent path usage over the Internet SHOULD NOT be implemented. Concurrent path usage is also supported in the current Linux reference implementation [https://multipath-dccp.org/].



Summary

Final step seen by the authors:

progress/completion of EXP->PS discussion

Questions to TSVWG community:

- What is needed to reach a final consensus on the proposed text for the new section 3.9 for EXP->PS? Is this something we can resolve today?
- Is there anything else we are missing before approaching WGLC?