

Multipath TCP Address Advertisement

IETF 96

draft-duchene-mptcp-add-addr-00

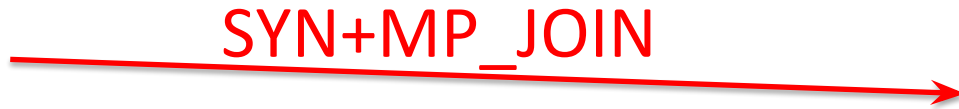
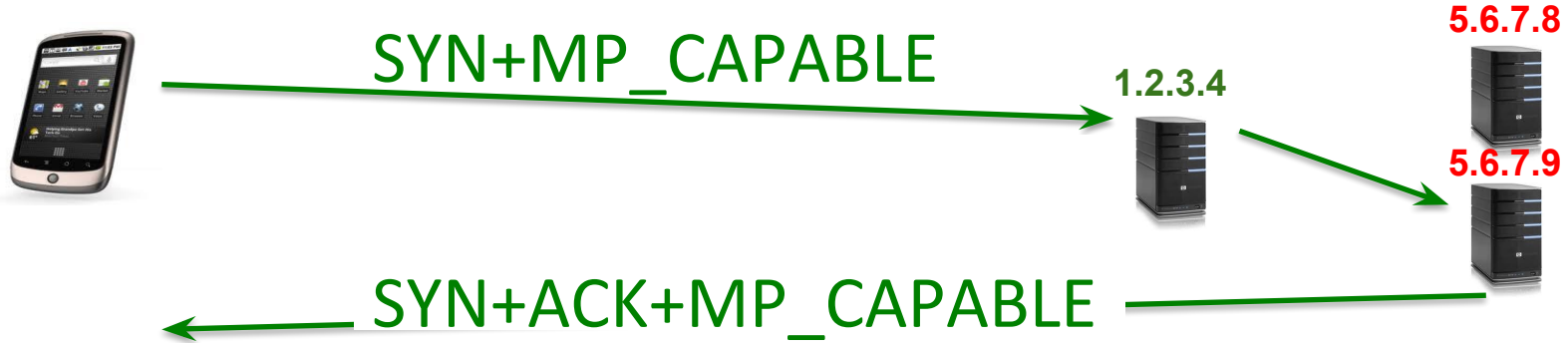
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Address advertisement in MPTCP: lessons learned

- Sometimes the address of the initial subflow should not be used to create subflows
- Some addresses do not have the same importance (priority)
- An interface can have several addresses (dual-stack, IPv6,...)
- Creating subflows has a cost and it is useful to minimize the number of subflows that are established

Load-balancers and MPTCP



How to link to corresponding server ?

Example



C->L : SYN+MP_CAPABLE

1.2.3.4



5.6.7.8



5.6.7.9



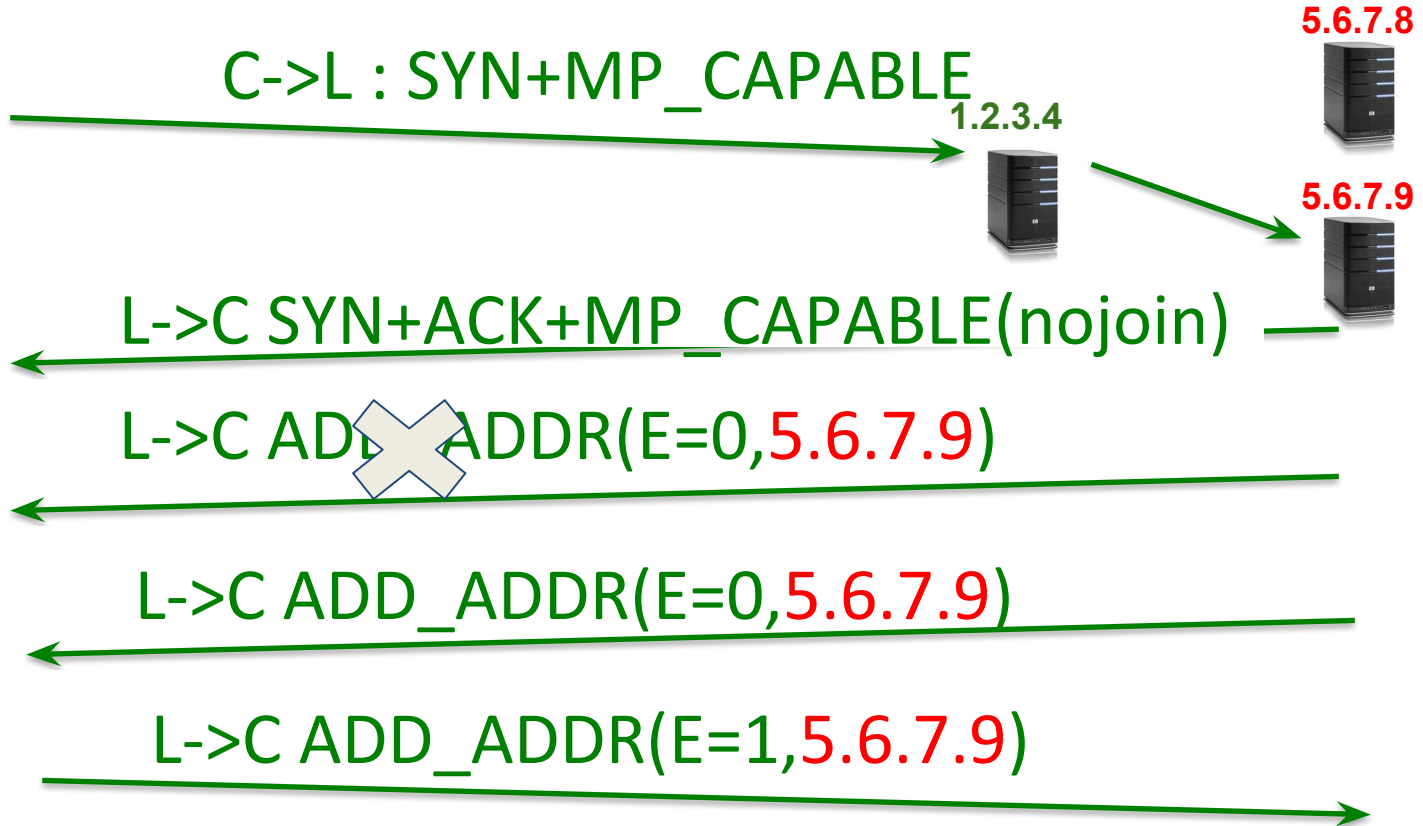
L->C SYN+ACK+MP_CAPABLE(nojoin)

L->C ADD_ADDR(5.6.7.9)

C->S2 SYN+MP_JOIN

S2->C SYN+ACK+MP_JOIN

Address advertisement reliability



Make after before or after break

MPTCP supports make before break and make after break

but does not enable hosts to indicate a preference

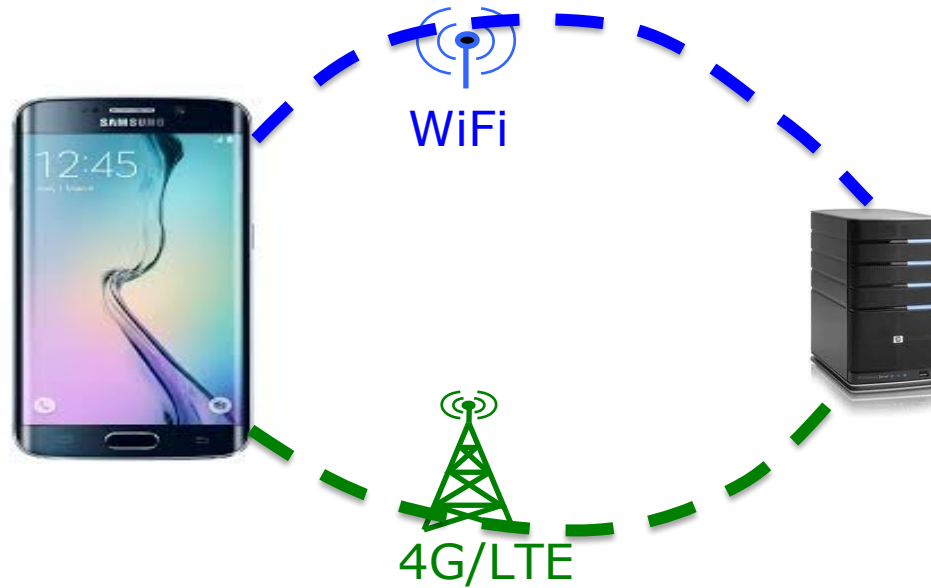
Motivations requesting make after break

Reducing the number of subflows on servers

Energy utilisation and radio resources on smartphones

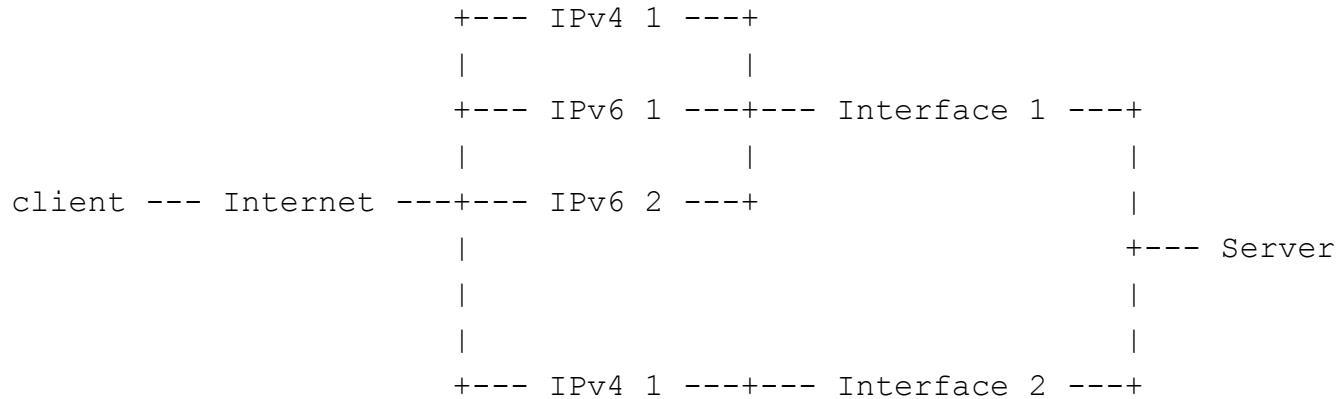
Priorities

The scheduler could schedule according to specific priorities.



Path Diversity

An interface can have multiple addresses (dual-stack, IPv6,...)



Conclusion

We propose to integrate the modifications from the draft into RFC6824bis

Thanks!

Questions?