Load balancing for Multipath TCP

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Load-balancers and MPTCP

SYN+MP_CAPABLE

SYN+ACK+MP_CAPABLE
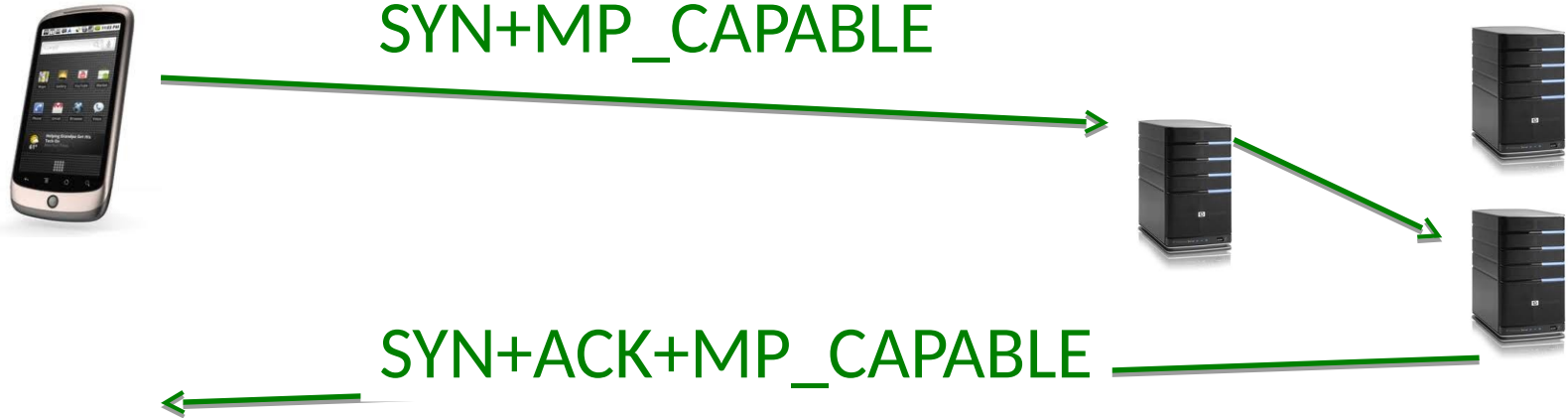
SYN+MP_JOIN
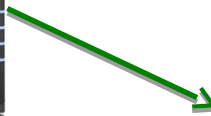
How to link to corresponding server ?

Proposed solution

- Use several addresses
  - Load balancer address advertised by DNS
  - One address (for IPv6) or one port (IPv4) per physical server
- Modify MP_CAPABLE option
  - New flag to indicate that the address used for the initial subflow should not be used as destination address to create other subflows

Example

C->L : SYN+MP_CAPABLE

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

L->C ADD_ADDR(S2)

C->S2 SYN+MP_JOIN

S2->C SYN+ACK+MP_JOIN