

LISP NAT Traversal

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Motivation

- NAT is a critical point for LISP-MN
- NAT Traversal Draft not covers some aspects:
 - SMR messages processing
 - Handover between NAT to no NAT
 - Change of RTRs
 - Path reachability
- OOR patch: If a device can be behind NAT, use an RTR

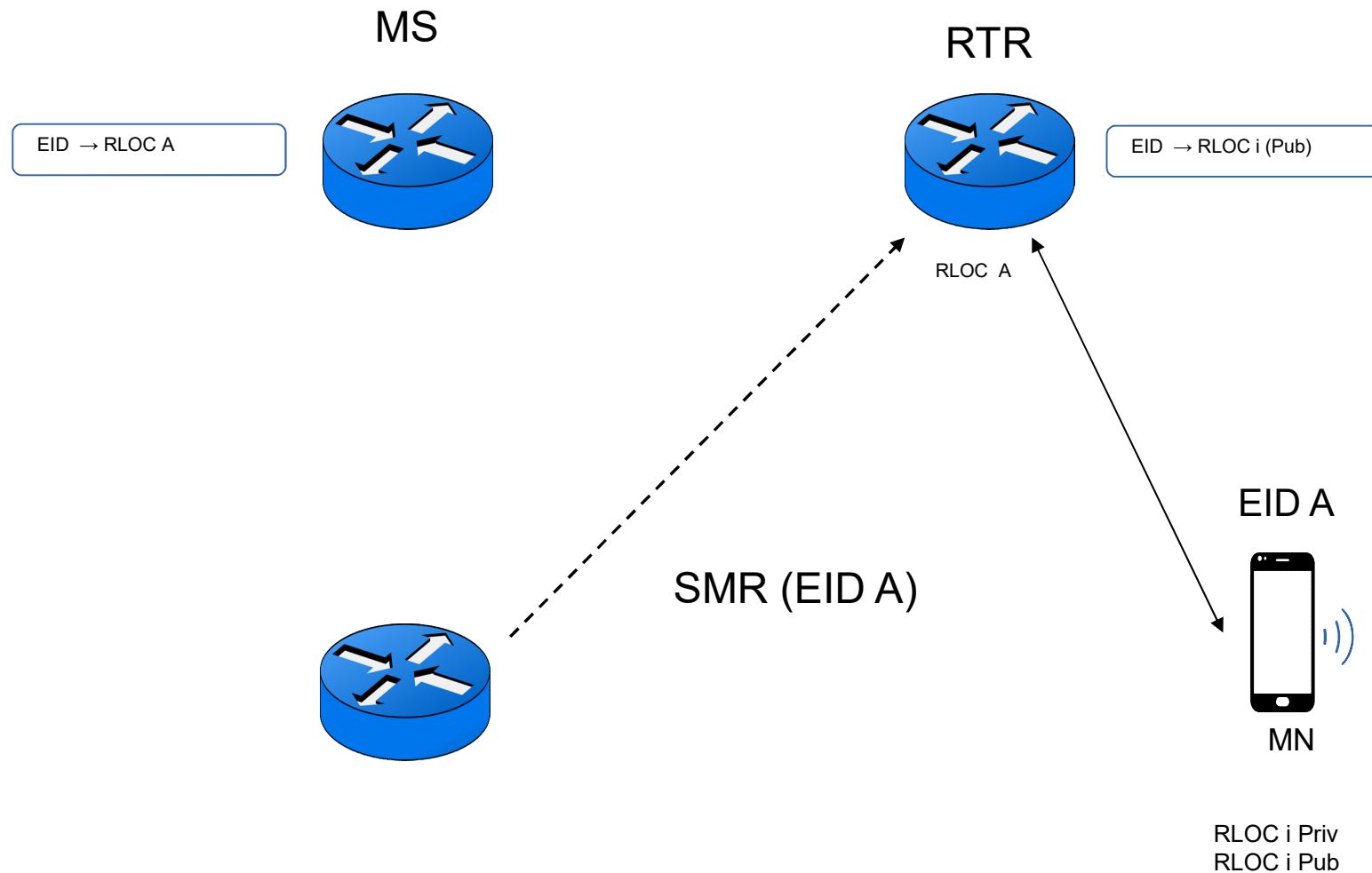
Map Cache update mechanisms:

- TTL-expiry : Requires really small TTL
 - High rate control messages
 - If both MN → battery drain
- SMR: No cache of remote ITRs only default cache entry
- Publish / Subscribe draft
 - Not part of RFC 6833

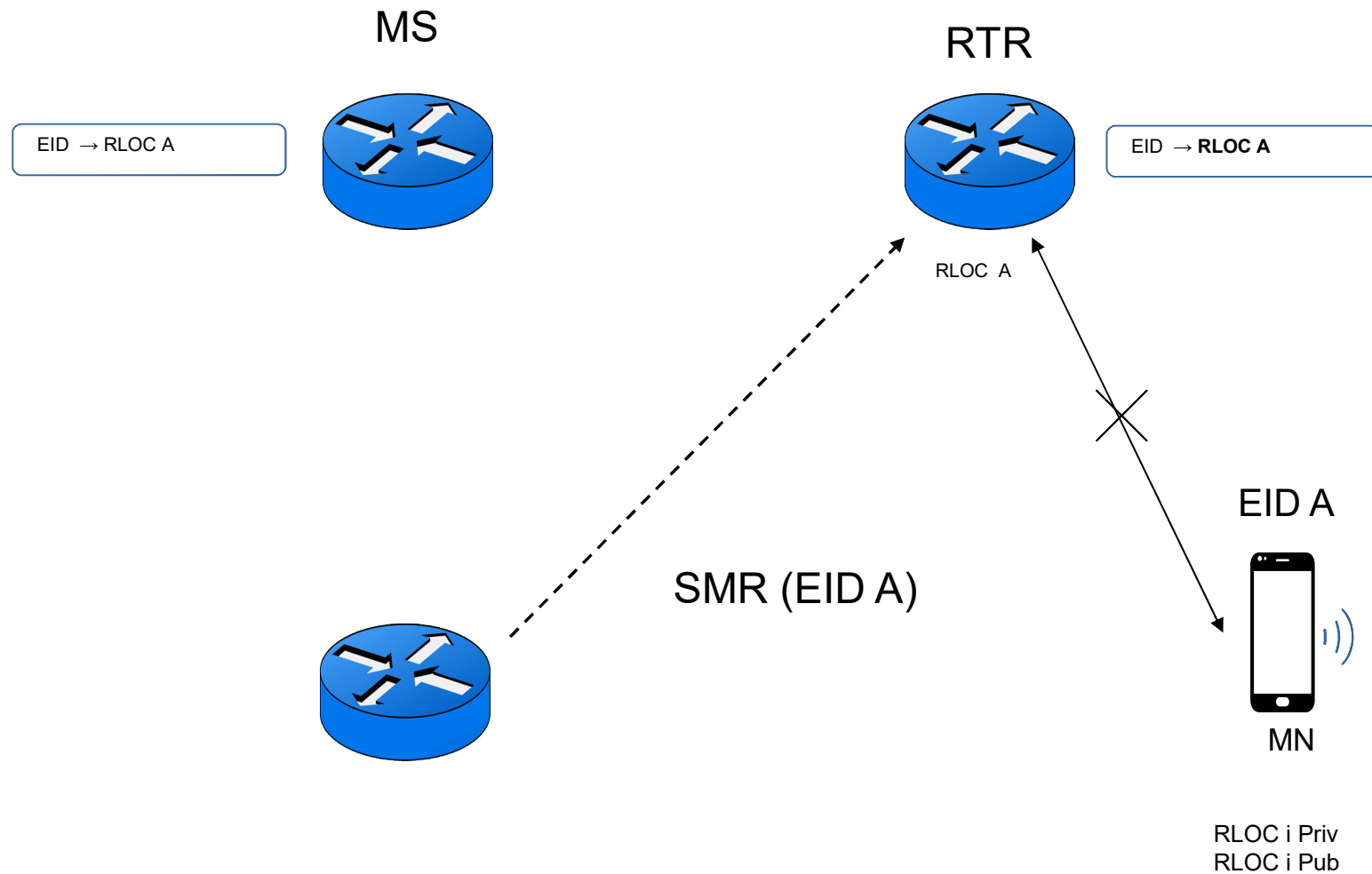
Map Cache update mechanisms: RTR

- Processing Encap Map Reg
 - To unregister RTR: Send Encap Map Reg with new mapping ?
- SMR
 - Draft not specifies the behavior of the RTR receiving a SMR
 - Options:
 1. SMR proxy to the appropriate ITRs
 2. Update the mapping -> What happens with NAT state ?
 3. Ignore

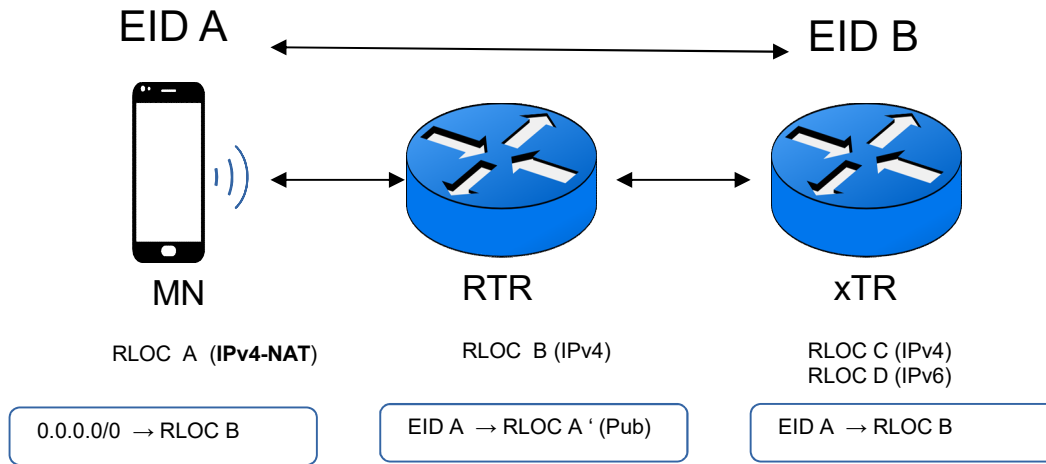
Map Cache update mechanisms: RTR SMR



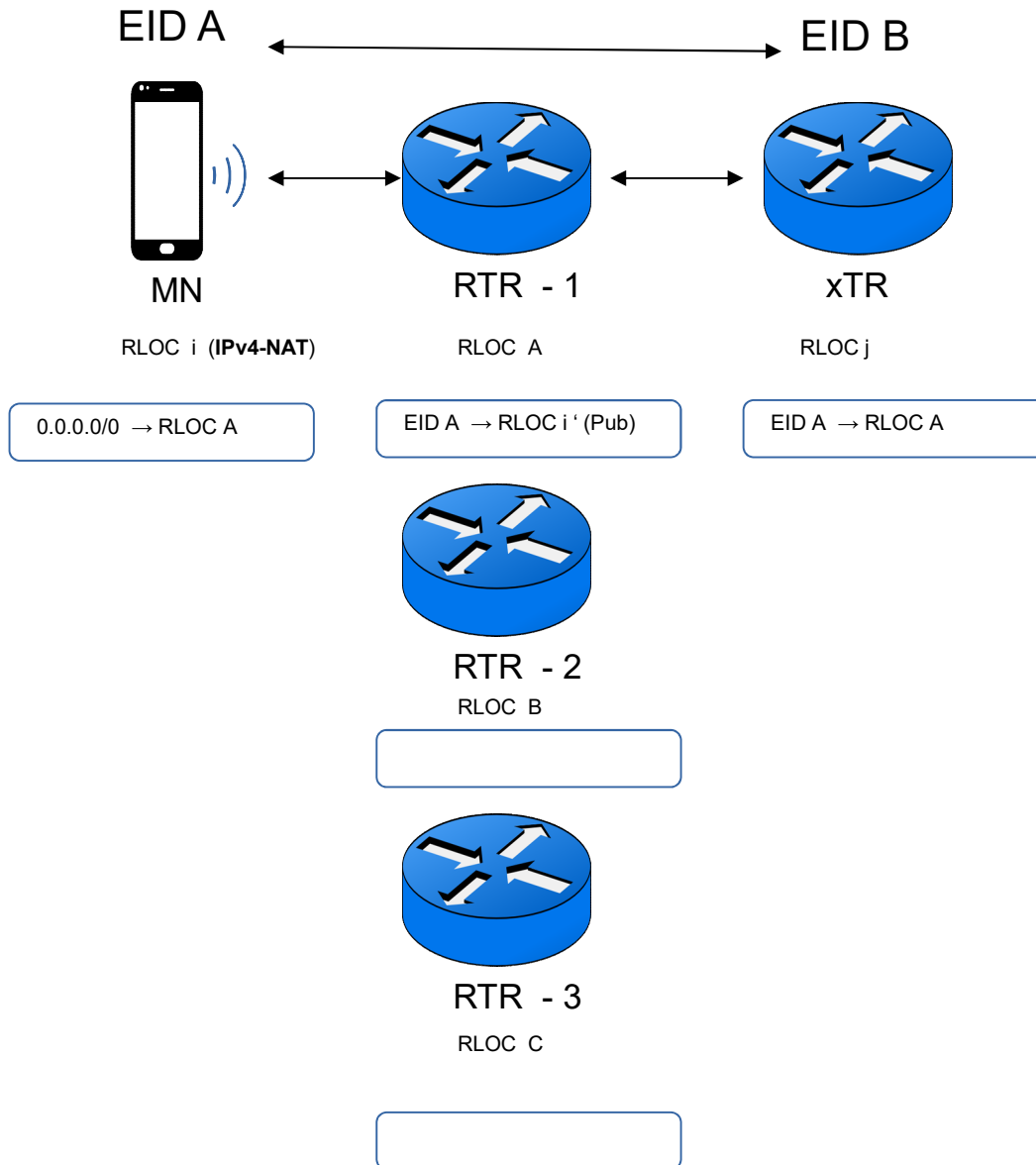
Map Cache update mechanisms: RTR SMR



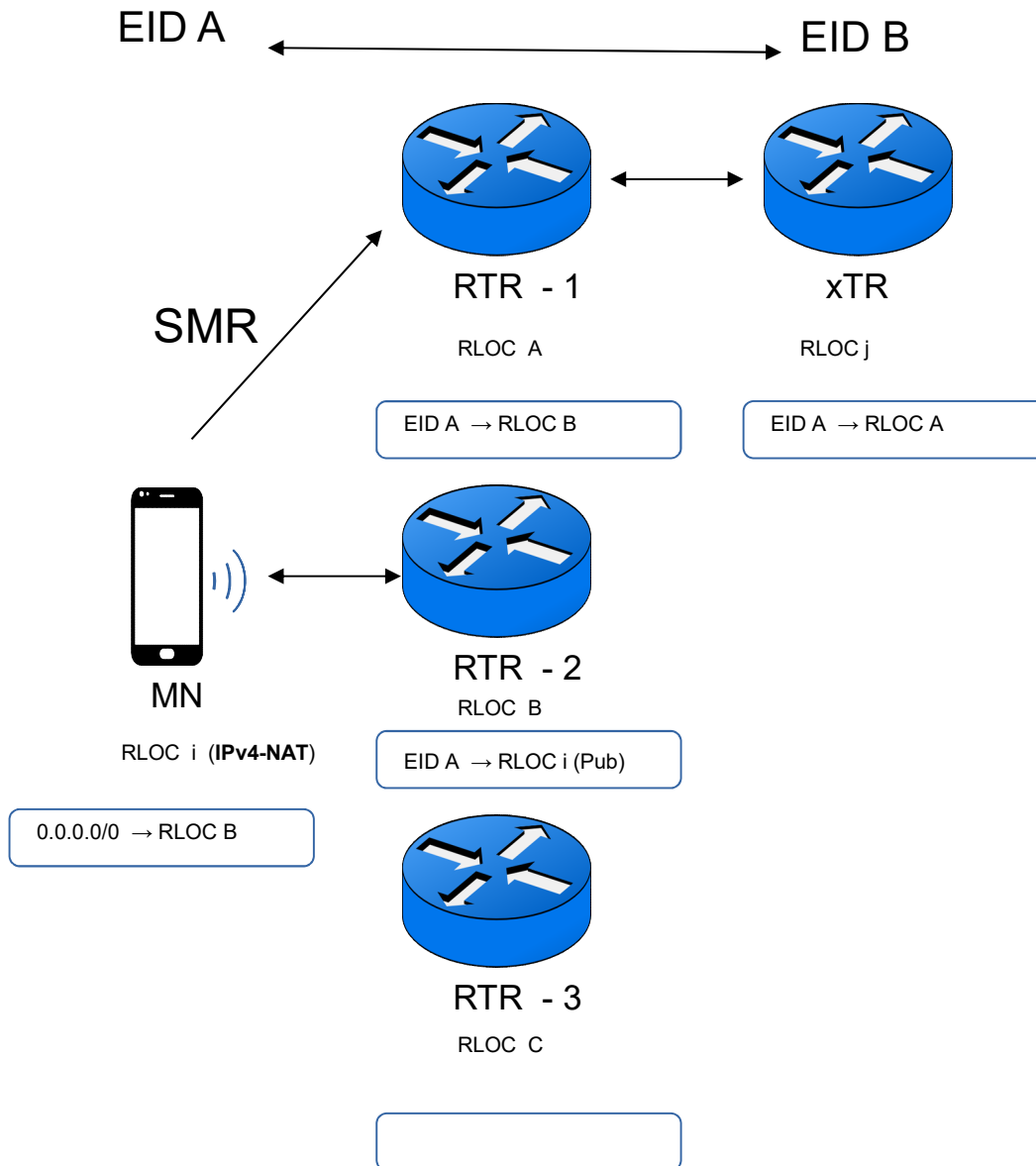
Handover: NAT to IPv6



Change RTR



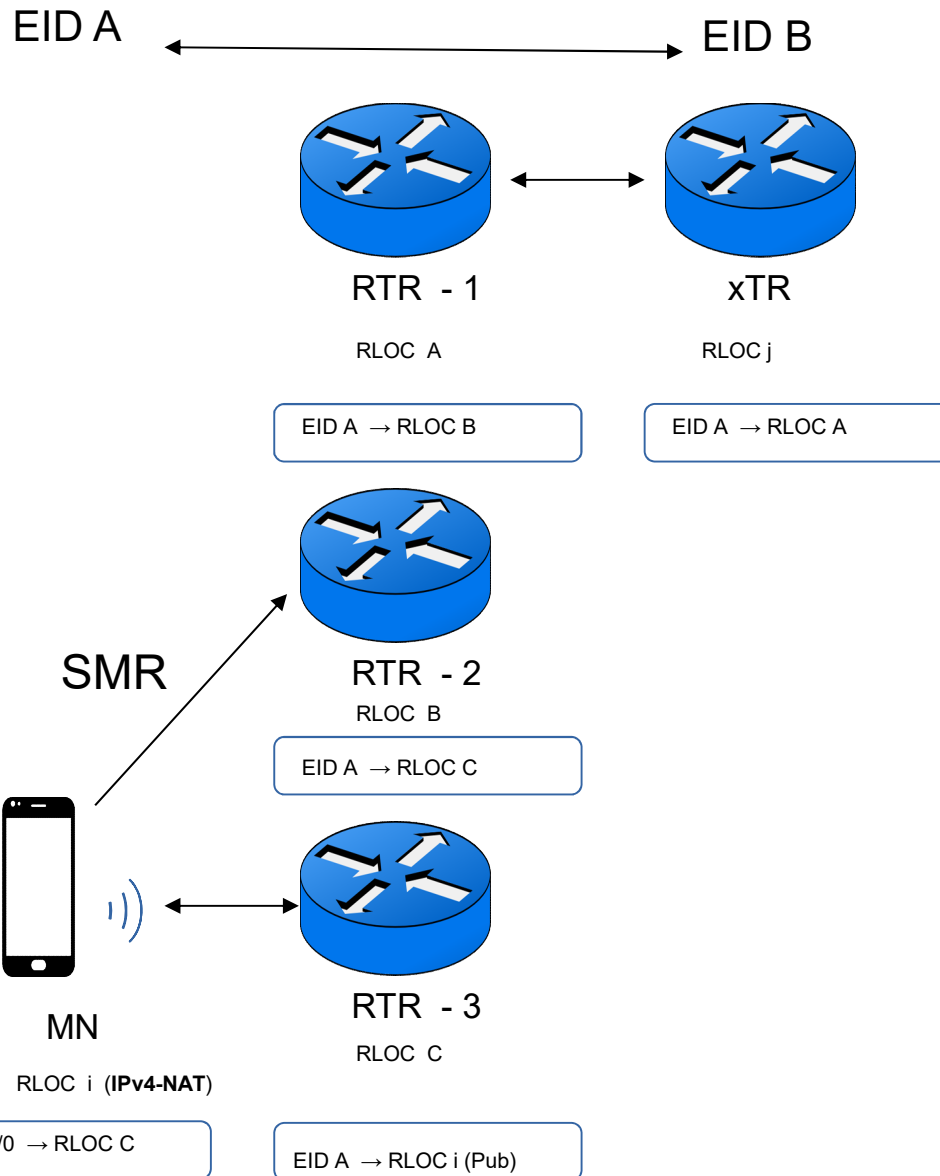
Change RTR



MN starts to use RTR 2

EID B -> RTR 1 -> RTR 2 -> MN

Change RTR



MN starts to use RTR 3

EID B -> RTR 1 -> RTR 2 -> RTR 3 -> MN

Possible solution:

SMR all learned RTRs

THANK YOU