Seamless Handover for Multiple-Access Mobile Node in PMIPv6

draft-cui-netext-pmipv6-shpmipv6-00

Yong cui, Xin Xu, WD. Wang, XM. Li, YZ. Huo, W. Luo

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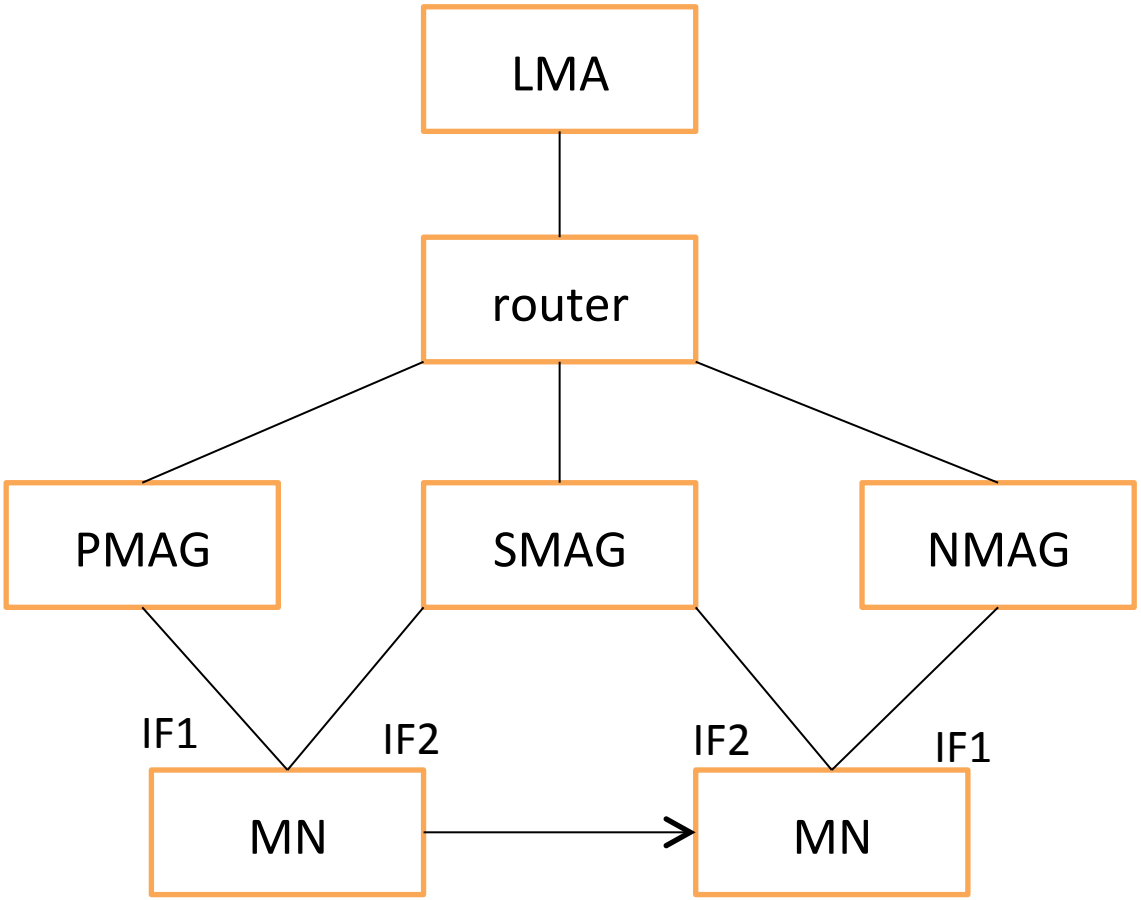
Motivation

- RFC 5949 has proposed two modes of fast handover scheme, but both of them have a limit
  - Just use one interface to handle all packets, even when the interface is under handover
  - The size of packet buffer may be the bottleneck, and the storage-and-forward model may bring a transmission delay
- It's possible to use the multi-access features of the MN to solve the problem.

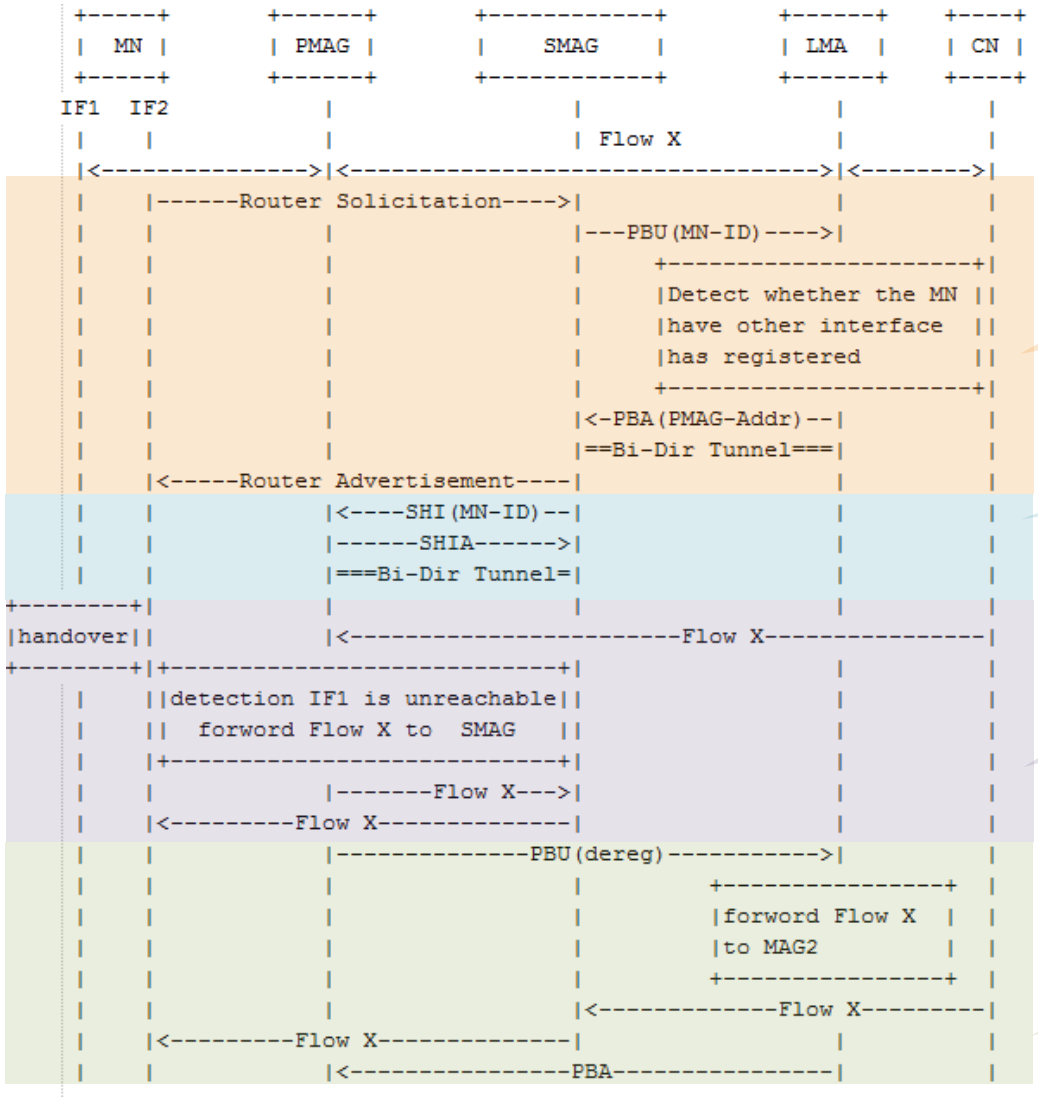
Multi-access MN Handover scenario



Solutions

- Basic Idea
  - Use the available interface of the MN to handle the packet that transport on the interface under handover
- Solutions
  - Build a bi-directional tunnel between MAGs that the MN is attaching to
  - When PMAG finds that the interface is under handover, it forwards packet to the SMAG
  - When LMA finds that the interface has leaved from PMAG afterward , it change its encapsulating destination to the SMAG

Handover signaling



New interface registration

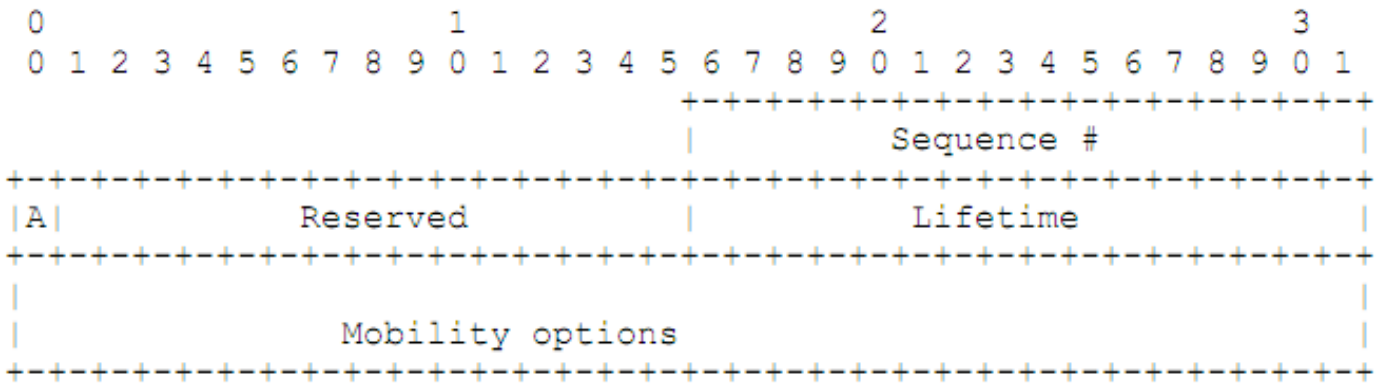
MAGs intereact

Handovering:
MAG forward packets

Handovering:
LMA forward packets

Message formats

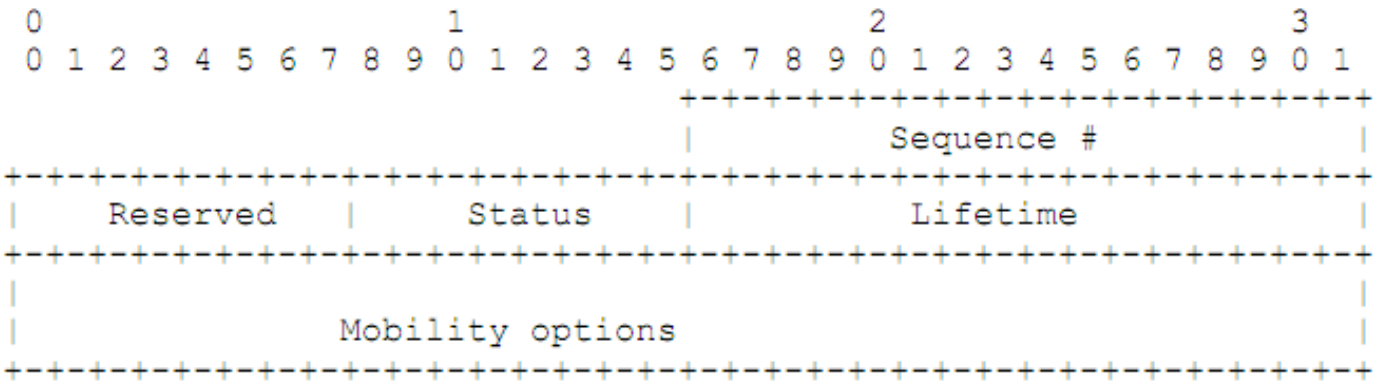
- Streamless Handover Initiate (SHI)



Notice: this message Must include MN-ID option

Message formats

- Streamless Handover Acknowledge (SHAck)



Next step

- Any questions/comments?