PMIPv6 Update Notifications

draft-krishnan-netext-update-notifications-00

Suresh Krishnan, Sri Gundavelli, Marco Liebsch, Hidetoshi Yokota, Jouni Korhonen

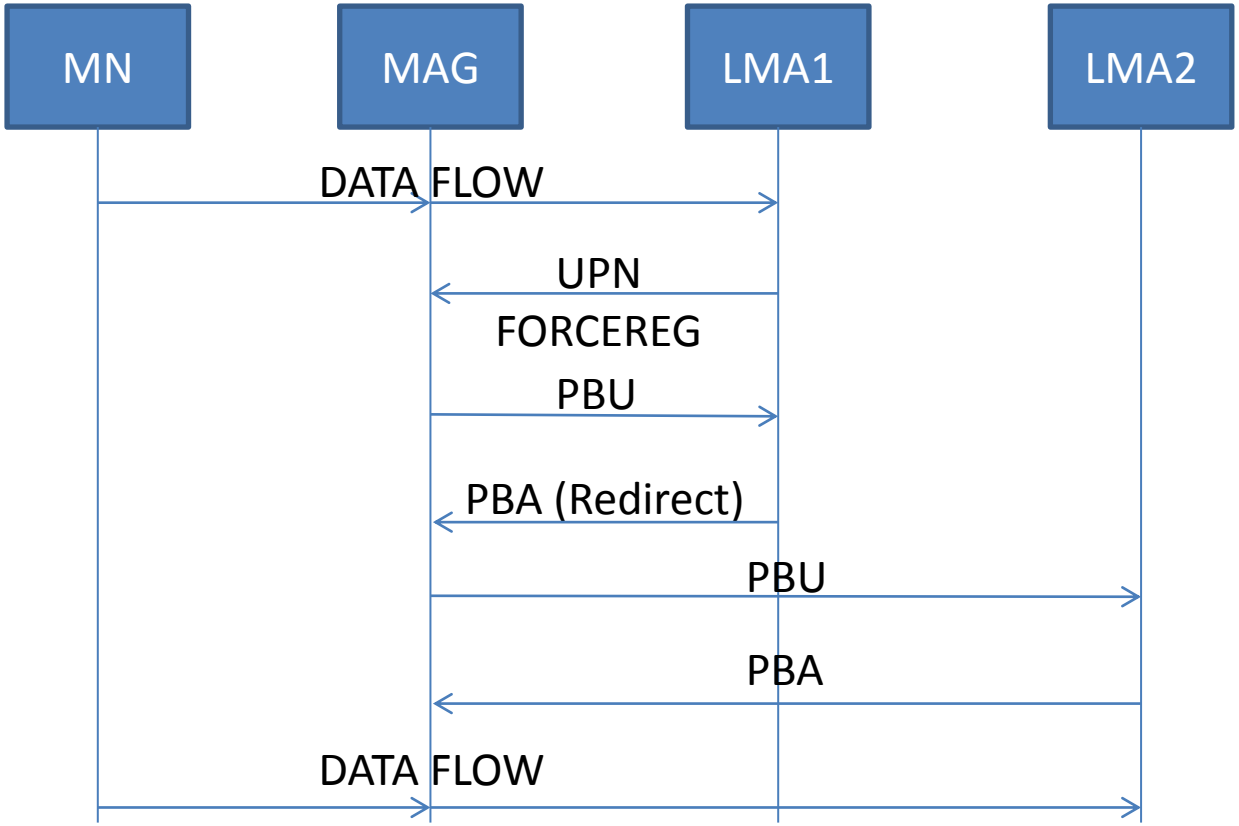
Current Situation

- The setup of the mobility session is initiated by the MAG by sending a PBU message and confirmed by the LMA in the PBA message
- Once the mobility session is setup, the LMA has no mechanism to inform the MAG about
  - any changes to the mobility session (or)
  - any parameters related to the mobility session

Why change?

- There are some scenarios where the LMA needs to send update notifications to the MAG
  - E.g. LMA needs to inform the MAG that it needs to reregister
    - It can do so to redirect the MAG to another LMA
    - Similar to RFC6463 but not at initial binding time

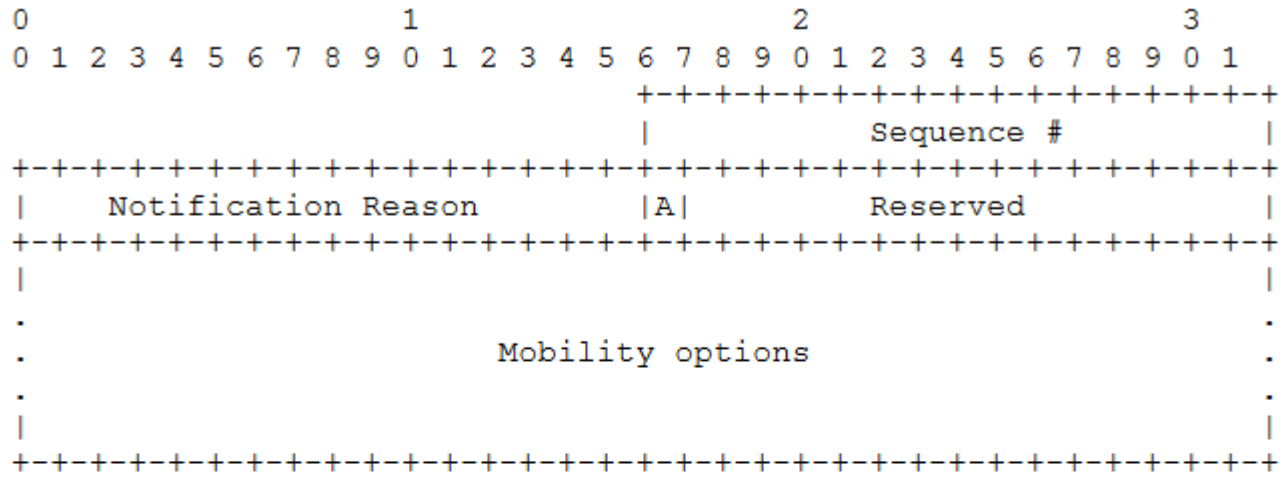
LMA Redirection flow



Mechanism

- The draft uses two Mobility Header signaling messages to accomplish this
  - Update Notification (**UPN**): The LMA sends an UPN message to a MAG to notify the MAG that some information regarding the mobility session or parameters related to the mobility session has changed
  - Update Notification Acknowledgement (**UPA**): The MAG sends an UPA message to a LMA in order to acknowledge receipt of an UPN message

UPN Message



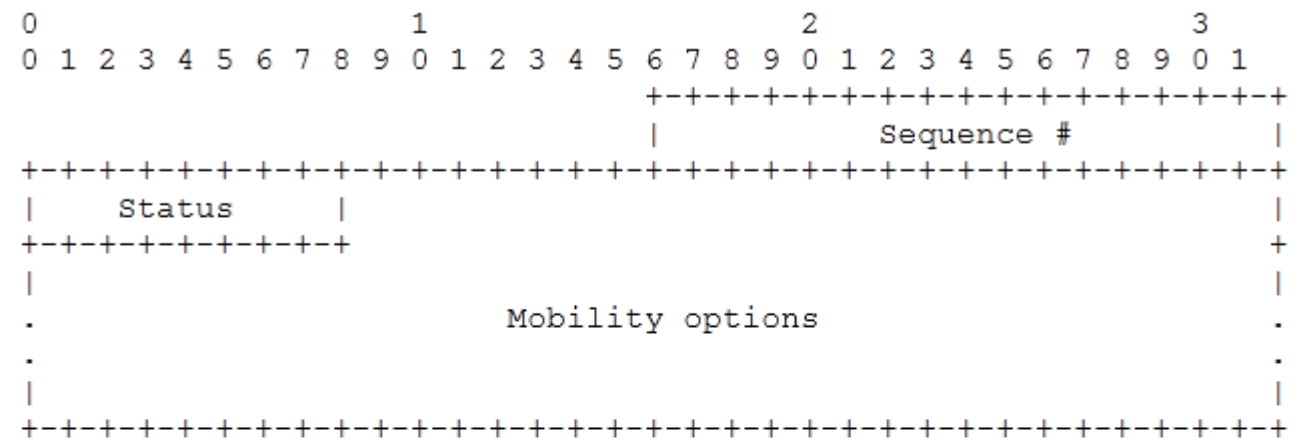
Sequence Number: A monotonically increasing integer. Set by the LMA and retained for retransmissions.

Acknowledgement Requested (A): If this bit is set, the MAG MUST send an UPA message in response to the received UPN message.

Notification Reason: Contains the code corresponding to the reason that caused the LMA to send the Update Notification to the MAG. This field does not contain any structure and MUST be treated as an enumeration.

Mobility Options: Contains a set of mobility options for the MAG to act upon. The set of mobility options that can be present in the message is related to the Notification Reason field in the message.

UPA Message



Sequence Number: Copied from the UPN message being acknowledged.

Status: Specifies the result of the MAG's processing of the UPN message. The status codes between 0 and 127 signify successful processing of the UPN message and codes between 128 and 255 signify that an error occurred during processing of the UPN message.

Mobility Options: Contains a set of mobility options used to provide context to the LMA. The set of mobility options that can be present in the message is related to the Status field in the message.

Comments received

- Raj sent a mail to the list mentioning the main use case can be achieved by using a smaller lifetime instead of asynchronous notifications
  - While this is true it can cause unnecessary traffic when the LMA does not require to change anything
- There is also some work ongoing in 3GPP CT4 that proposes using such a mechanism to communicate configuration changes

Next steps

- Any questions/comments?
- Is there interest in the WG to continue working on this?