

Prefix Delegation for Proxy Mobile IPv6

draft-ietf-netext-pd-pmip-01

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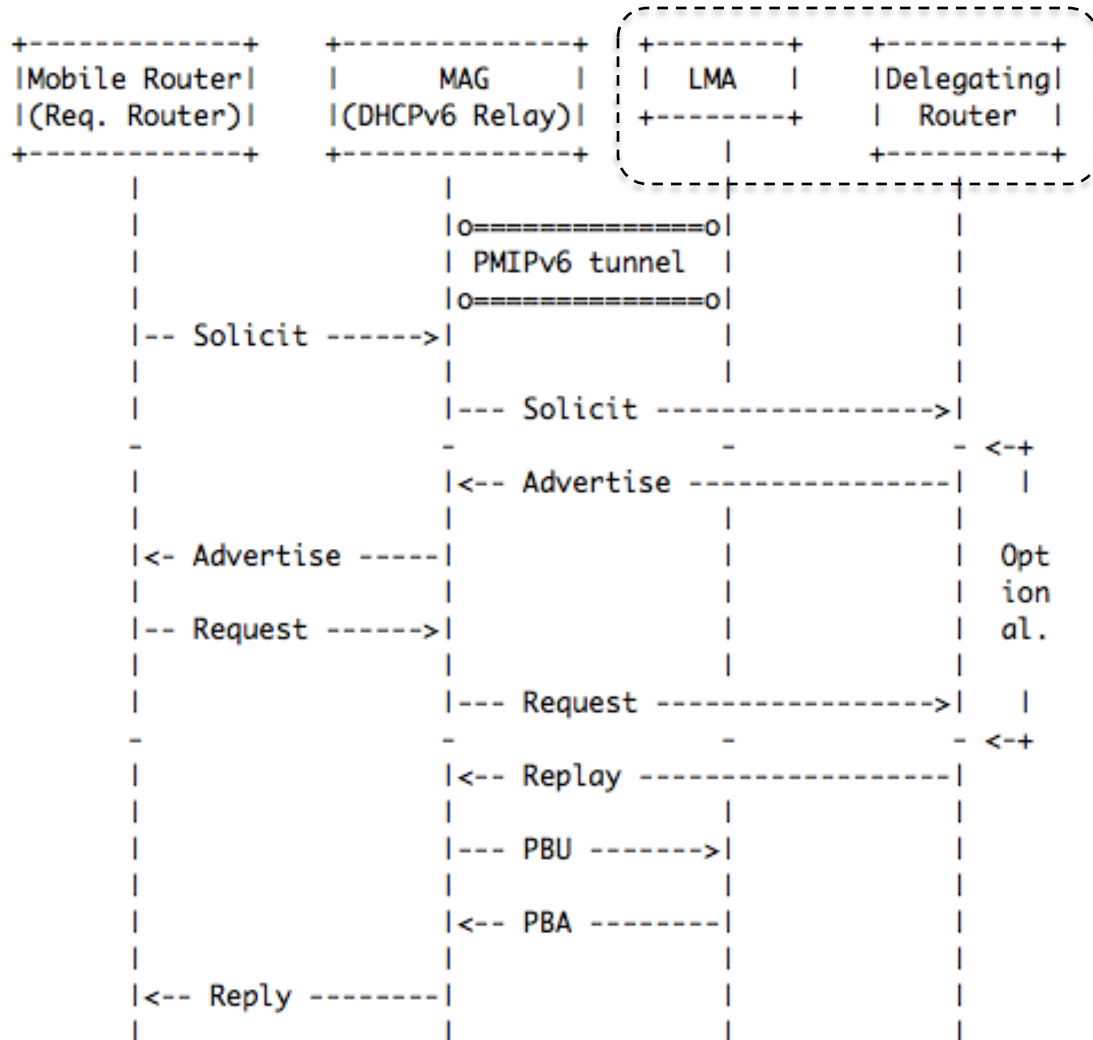
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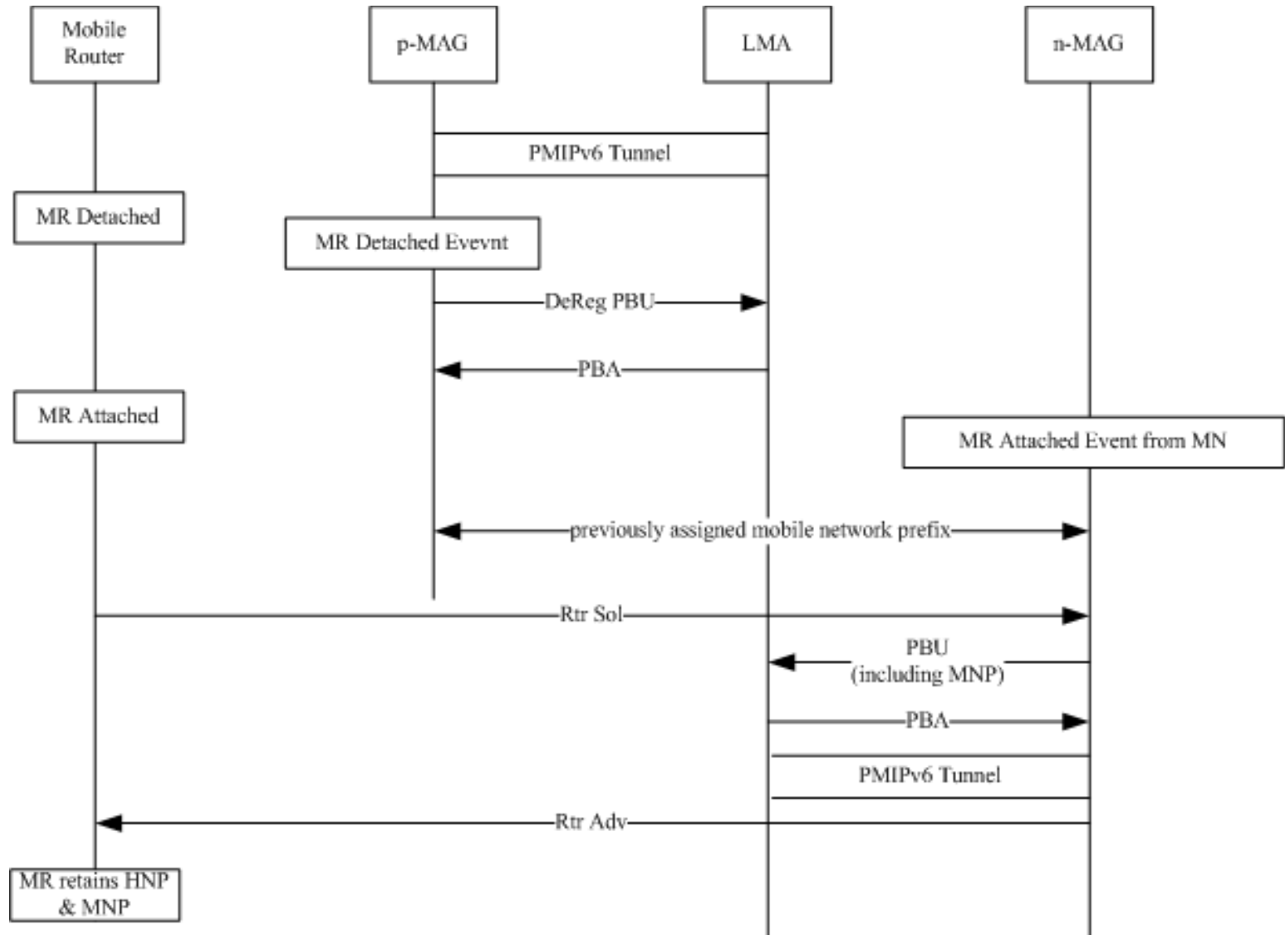
Motivational Requirement

- Provide means to enable DHCPv6 Prefix Delegation for a Proxy Mobile IPv6 deployment.
- DHCPv6 Prefix Delegation as defined in RFC3633 does not work as of today:
 - When MN hands off from a MAG to another MAG, the target MAG does not have the knowledge of the delegated prefix set, thus it also lacks the forwarding state for the delegated prefixes.
 - The LMA does not necessarily have the knowledge of the delegated prefix set, thus it is not able to forward packets destined to delegated prefixes.

Call Flows



Handover



Extension to Data Structure

- Binding Cache Entry (BCE) and Binding Update List Entry (BULE) need to be extended with a new prefix information field as specified in RFC3963.
- This prefix information field is used to store the mobile network prefix information.

Forwarding on MAG

- On receiving a packet from the bi-directional tunnel established with the MR's LMA, the MAG must use the destination address of the inner packet to forward it on the interface where the destination MNP is hosted.
- On receiving packets from a MR connected to its access link, the MAG must ensure that there is an established binding for the MR and its LMA before tunneling the packet to the MR's LMA.

Forwarding on LMA

- LMA must be able to receive packets destined to the MR's mobile network
- On receiving packets from a MR connected to its access link, the MAG must ensure that there is an established binding for the MR and its LMA before tunneling the packet to the MR's LMA.

Next steps

- Spin out a new revision fixing known issues and based on received comments.
- Expert reviews needed.