

Home Network Prefix Renumbering in PMIPv6

draft-yan-dmm-hnprenum-02.txt

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Motivations

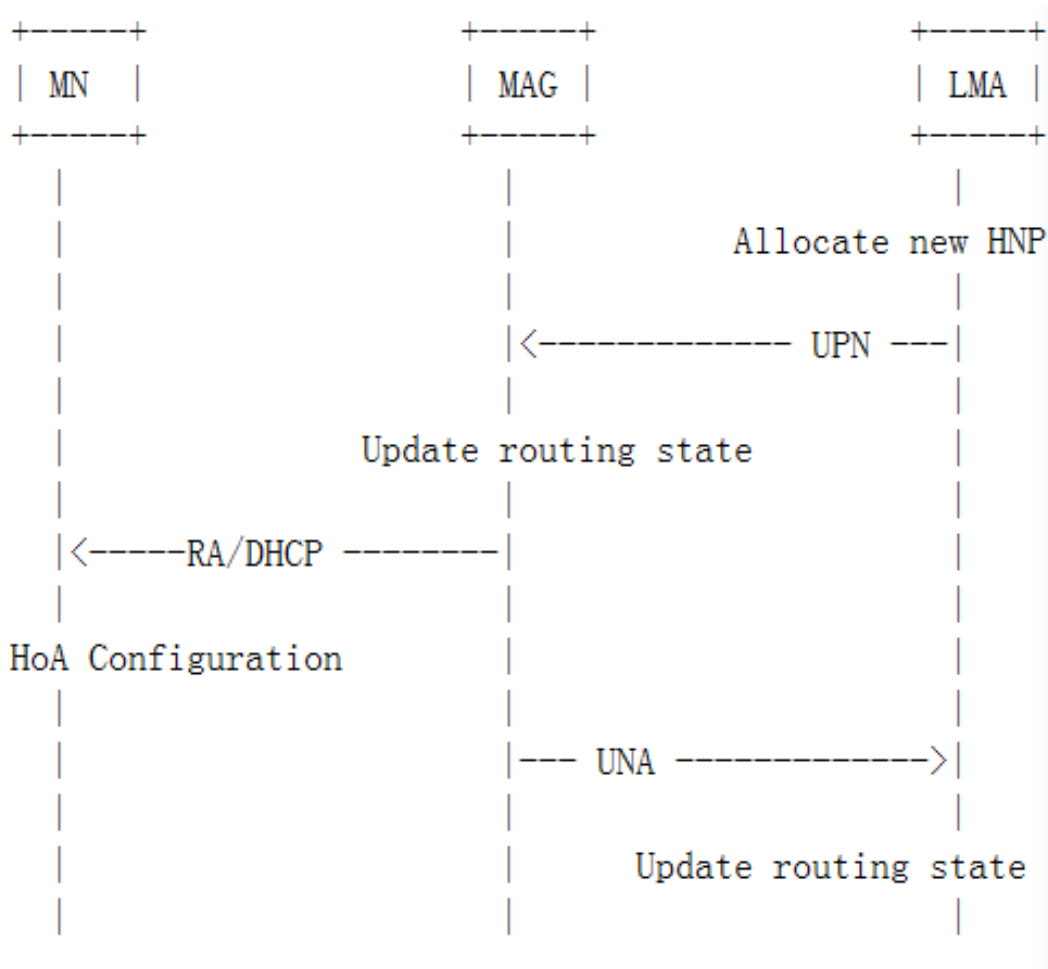
- IPv6 prefix MAYBE renumbered if it is not PI type1
- For the HNP in PMIPv6, renumbering is also possible:
 - PMIPv6 service provider switches to a different ISP
 - current serving LMA switches to another LMA but without inheriting the assigned HNP
 - The PMIPv6 service provider may reorganize its network topology

1S. Jiang, B. Liu, and B. Carpenter, “IPv6 Enterprise Network Renumbering Scenarios and Guidelines”, RFC 6879, February 2013.

Motivations

- Although this issue is also discussed in the RFC 5213 (section 6.12), the related solution is not specified.
- RFC 7077 specifies a scheme to support the asynchronously update from the LMA to the MAG about changes related to a mobility session.
- In this way, the HNP renumbering can be easily supported based on RFC 7077.

Solution



- 1. LMA allocates new HNP.
- 2. LMA sends UPN message to the MAG.
- 3. MAG sends new HNP with RA or DHCP.
- 4. MAG sends back UNA.

02.txt [diffs]

- DHCP support
- Session connectivity
 - Soft-mode:
 - Reduce the packet loss
 - [transient binding in RFC6058]
 - Hard-mode:
 - Simple and efficient

Next step

- This issue will be considered by DMM?
- The solution makes sense?
- Next?