HMIPv6 updates

draft-ietf-mobileip-hmipv6-07.txt
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Motivation

- Reduce number of BUs when MNs move within a MAP domain

- Transparency of the MN's mobility to CNs

- Location privacy

Changes from the last revision

- Technical:
  - Removed Extended mode. To be documented in a separate draft.
  - Updated the BU format to match changes in the base spec
  - Updated the draft to allow MNs to perform RR to CNs.
    - The MN uses RCoA as a source address when sending COTI/COT messages.
    - The MN MUST use RCoA as a source address when sending packets to CNs
  - Described how the MN establishes an SA with the MAP in detail
  - Added a new section that gives hints for how ARs can detect MAP failures and inform MNs

Changes from the last revision …cont

- Editorial:
  - Clarified the use of the P, I and V flags in the MAP option
  - Added a new term: "local BU" for the BU sent from the MN to the MAP
  - Cleaned up the terminology section
  - Rewrote the "Introduction and motivation" section in light of changes to MIPv6 base specification
  - Re-arranged chapters to describe the protocol operation before MAP discovery
  - Several minor editorials

Comments on the new revision

- Remove chapter 9: This chapter describes how a MN can send two BUs to the MAP and HA by encapsulating the HA BU in the MAP BU (I.e. two different IP packets with 2 different headers).
  - No objections on the list.
  - Suggested action: The chapter will be removed
- Specify timeouts and retransmissions of local BUs (to the MAP)
  - Suggested action: We can specify that the local BU should be retransmitted twice upon failure. The first retransmission after 1 second, then exponential backoff (2s and 4s).
- Need for another MAP discovery mechanism
  - Suggested action: It was agreed that this will be done in a separate draft.

Authors' question to the group

- The current security scheme assumes that there is no need for testing the care-of address in order to authorise the local BU.

- Reasons:

  - The relationship between the MN and a MAP is similar to that between the MN and a HA.

  - The MAP binds the MN's phase 1 identity to RCoA.

  - If the MN misbehaves, it will be tracked.

  - Performance: this allows forwarding of packets after a single message (BU).

- Question: Are these assumptions correct?

- If a CoA test is needed, a 3-way handshake can fix this (I.e. BU => BA=> BAA)