Multiple Care-of Address Registration

draft-ietf-monami6-multiplecoa-01.txt

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Status

- draft-ietf-monami6-multiplecoa-01.txt
  - Missed deadline. The draft is currently queued.

- Updates
  - Adding a special value for "default binding" in the priority field. This value is used for "flow binding"
  - BID definition update
    - BID is assigned to each binding (not to interface)
  - Fix Typos

Comments from Jari

- Lack of failure detection scheme
    - Investigate other schemes co-operation

- Allow to use BID when single binding is active?
    - Yes

- The usage of the priority field
    - Flow filtering needs default binding
    - MN can use the priority value to pick one binding if no filtering scheme is available

- Verification whether CN supports MCoA or not
    - MN must set A flag in the first BU to CN

- RR timing issue
    - The current draft said that CoTI/HoTI should send before sending BU. The text will be updated.
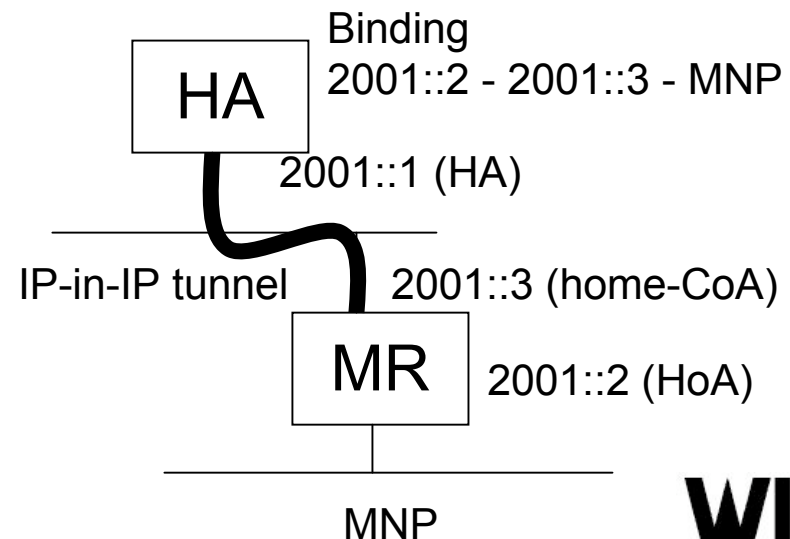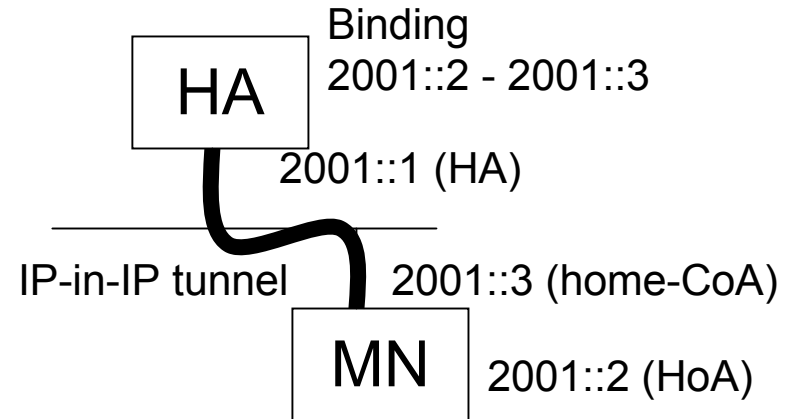
- Blank security section

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Bulk Registration
(Comments from Jari)

- ## The bulk registration is defined:
  - MN can carry **multiple** bindings in a single BU

- ## MN forgets BID due to unexpected reboot etc.
  - Changing the semantics of the bulk registration
    - In the bulk registration, MN must carry "**All the CoA**". HA must replace all the binding with the new bindings
  - Adding add-on flag in MCoA sub-option. When MN wants to add a binding, MN set this flag on.
  - Removable flag is complicated..

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Comments from Keigo

- When MN returns home, it creates CoA from its home prefix (Home-CoA) and registers it to HA
  - Advantage
    - MN can utilize an interface attached to the home link and other interfaces attached to foreign links
  - Issues
    - The definition of HoA and CoA (RFC3775) is modified.
    - MN starts NS for the destination located on the home link (bypass tunnel?)
      - Priority of NDP/Routing Table/Binding Cache??
    - I'm afraid of side-effect of this changes. (ex. IKE?, MR routing update, etc)

Binding
2001::2 - 2001::3

HA

2001::1 (HA)

IP-in-IP tunnel   2001::3 (home-CoA)

MN   2001::2 (HoA)

Binding
2001::2 - 2001::3 - MNP

HA

2001::1 (HA)

IP-in-IP tunnel   2001::3 (home-CoA)

MR   2001::2 (HoA)

MNP

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Operational Solution for returning home

- If a home link is multihomed (i.e. advertising one home prefix and another foreign prefix), similar configuration can be achieved

HA

2001::1 (HA)

RA (2001::/64 and 2002::/64)

MN 2001::2 (HoA)

Binding
2001::2 - 2002::3

HA

2001::1 (HA)

IP-in-IP tunnel   2002::3 (CoA)

MN 2001::2 (HoA)

No returning home

HA

2001::1 (HA)

2001::2 (HoA)

MN

Returning Home