SHIM6 - MIPv6 Interaction

IETF 63

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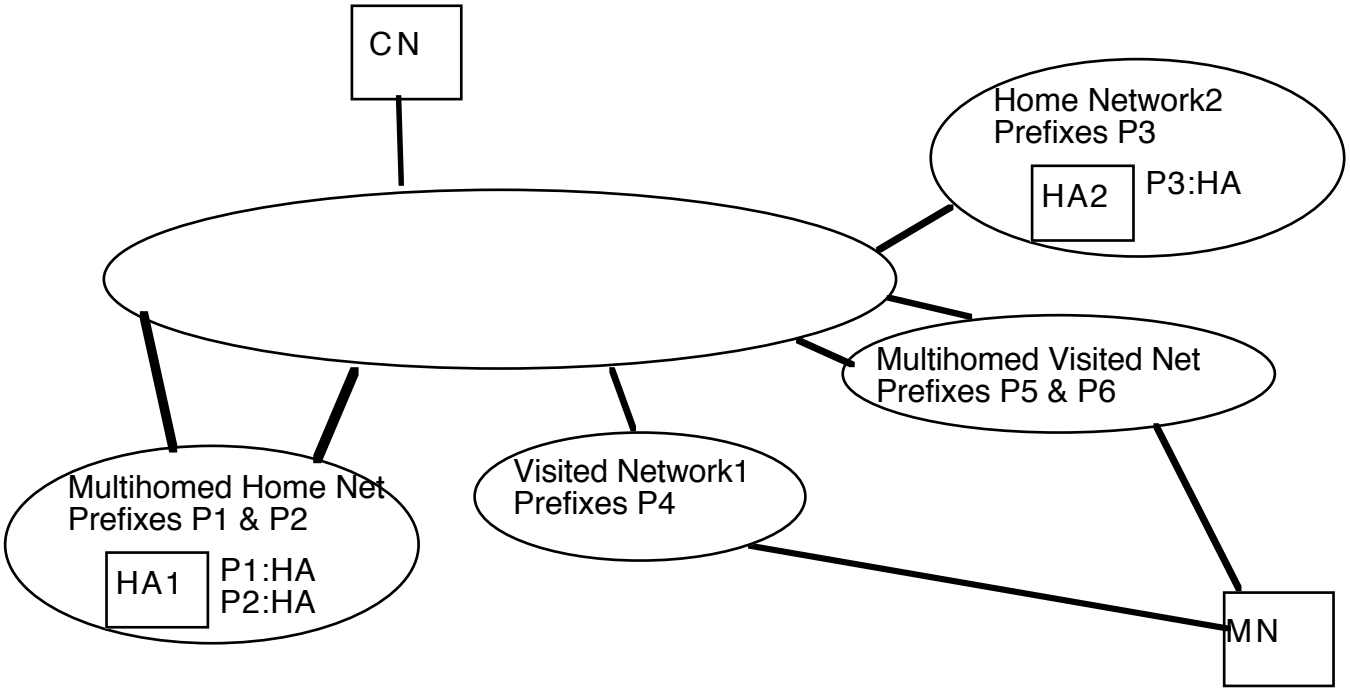
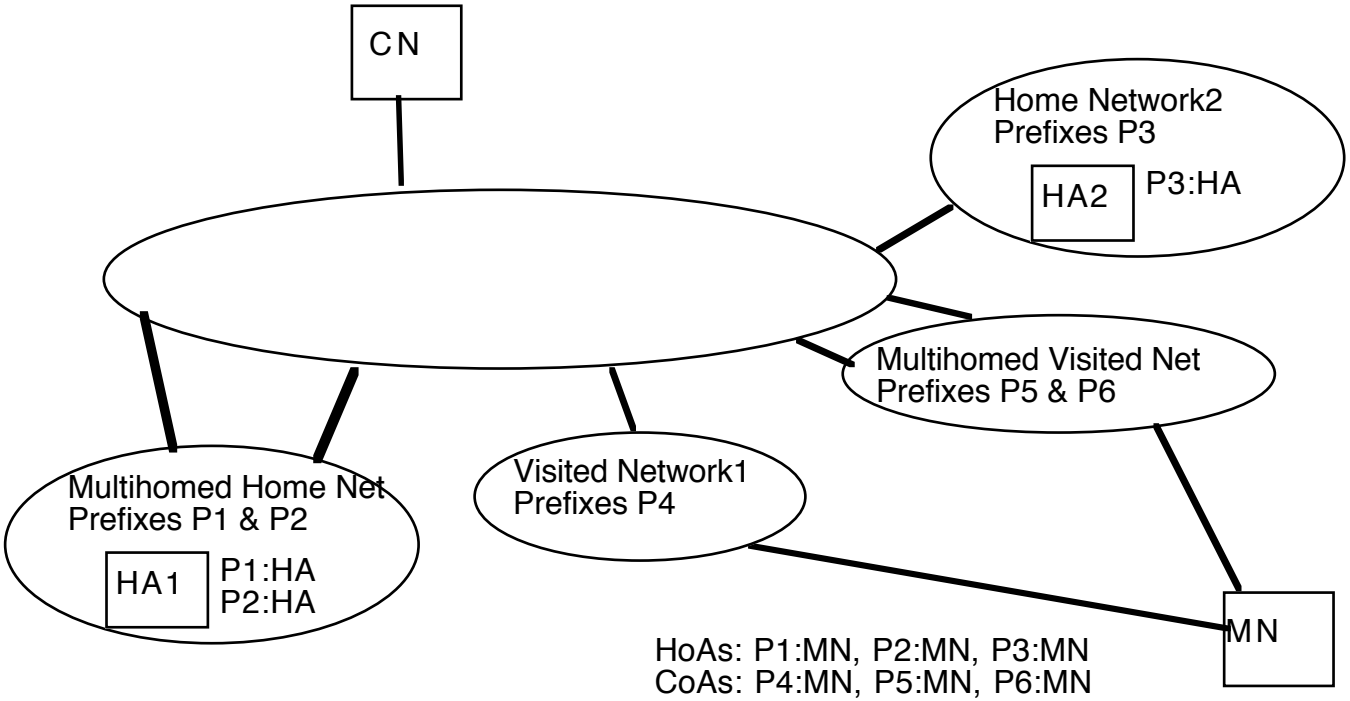
Overview

- Explore MIP6-SHIM6 interaction
  - potential benefits/ limitations
- Layering SHIM6 over MIP6
- BT and RO mode of MIP6
- Multiple HoAs and Multiple CoAs
  - Multiple HoAs: mh home network, many home nets/agents, many interfaces
  - Multiple CoAs: mh Visited net, many interfaces

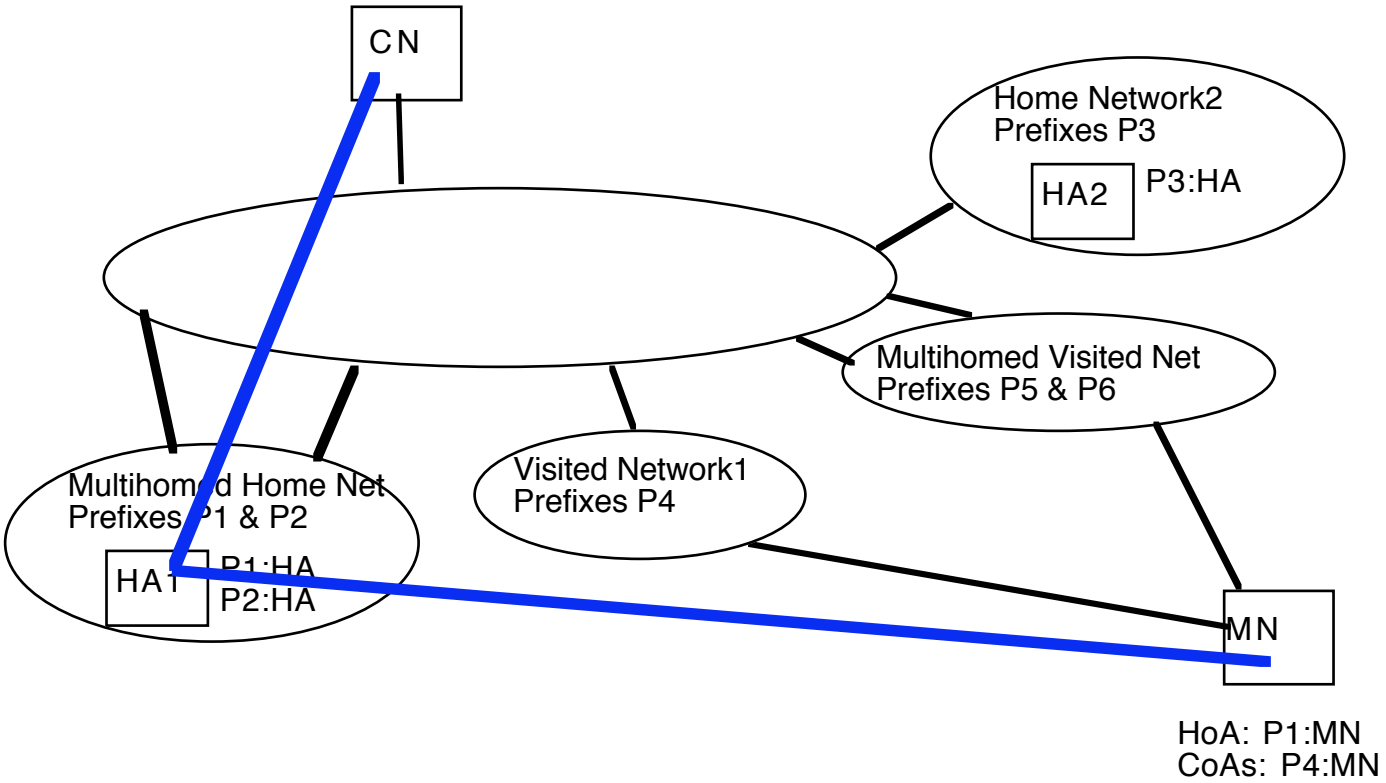
Application scenario



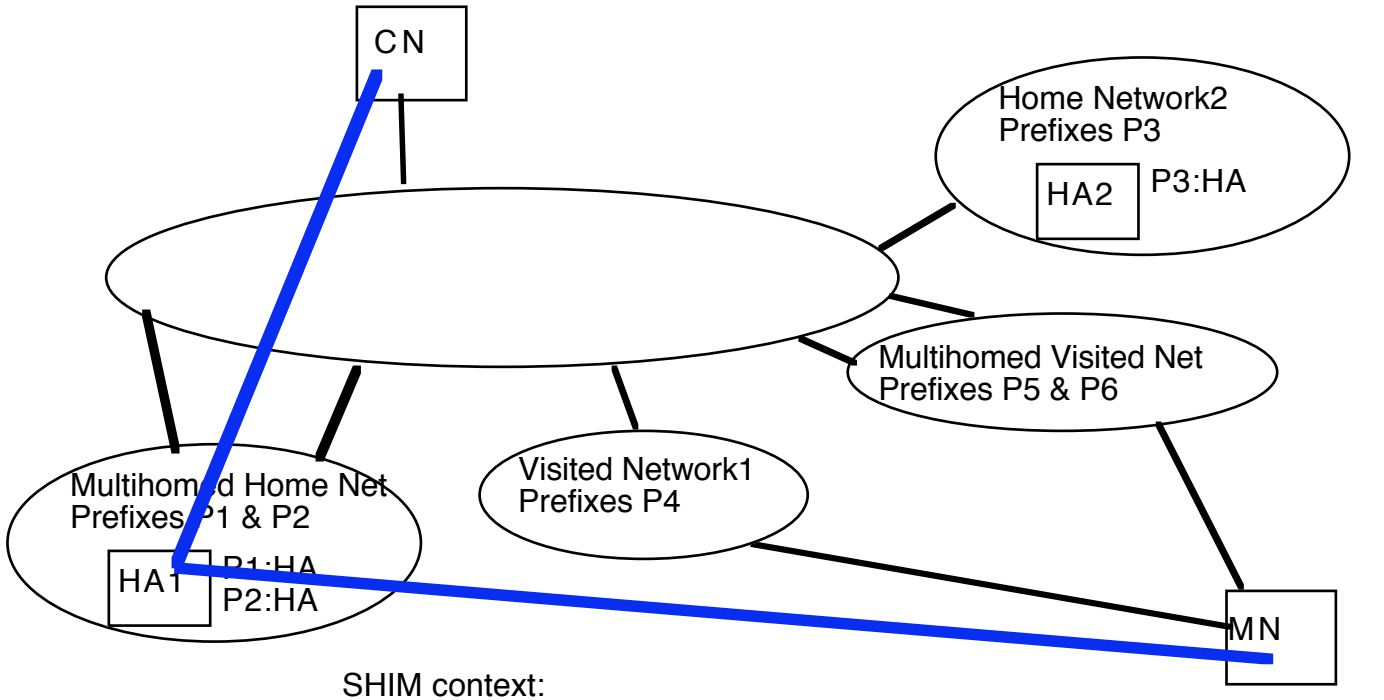
Application scenario



BT Mode


CN
Home Network2
Prefixes P3
HA2
P3:HA
Multihomed Visited Net
Prefixes P5 & P6
Visited Network1
Prefixes P4
Multihomed Home Net
Prefixes P1 & P2
HA1
P1:HA
P2:HA
MN
HoA: P1:MN
CoAs: P4:MN

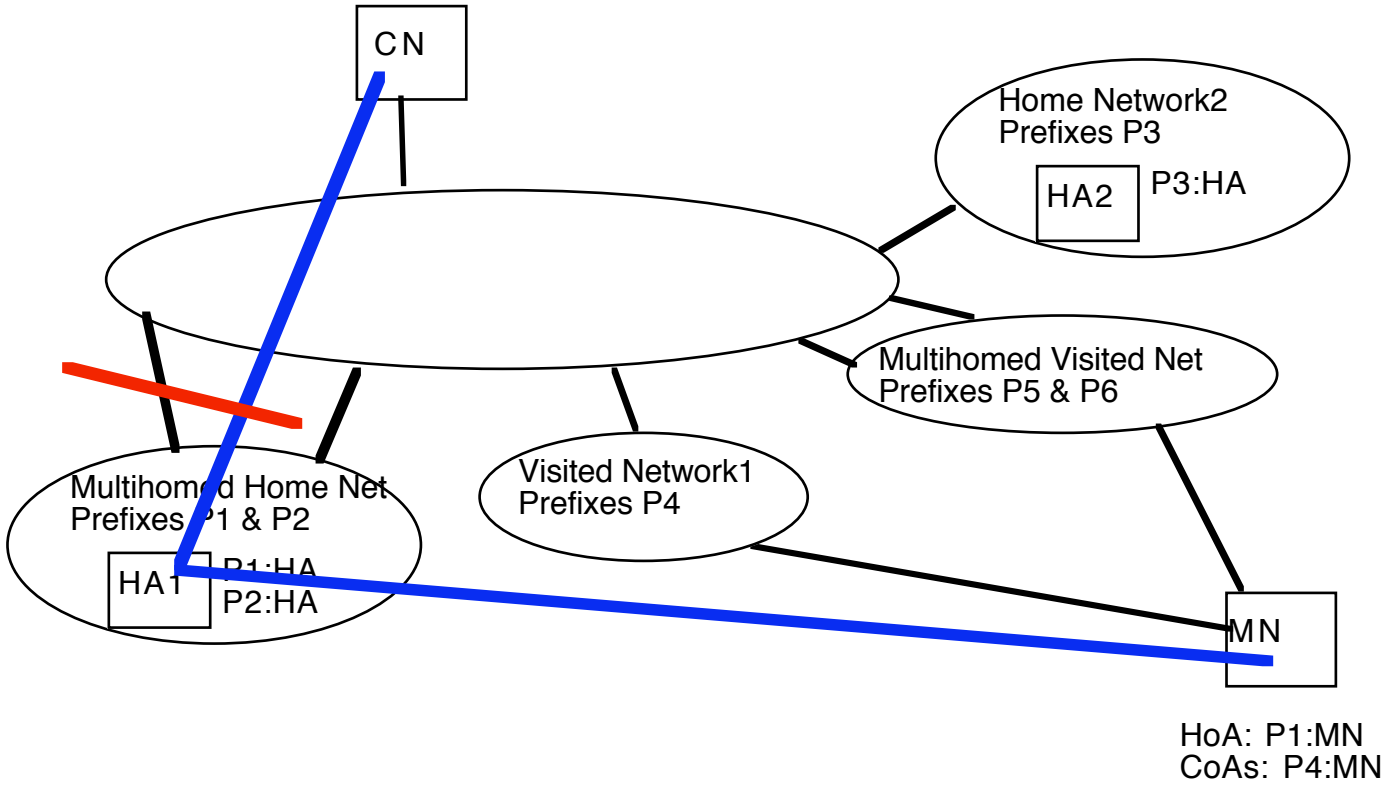
BT mode



SHIM context:
ULIDs: P1:MN, IP:CN
Locator Set
P1:MN: **P1:MN,** P2:MN, P3:MN, (P4:MN,P5:MN, P6:MN)
IPCN: **IPCN**

HoA: P1:MN
CoAs: P4:MN

BT mode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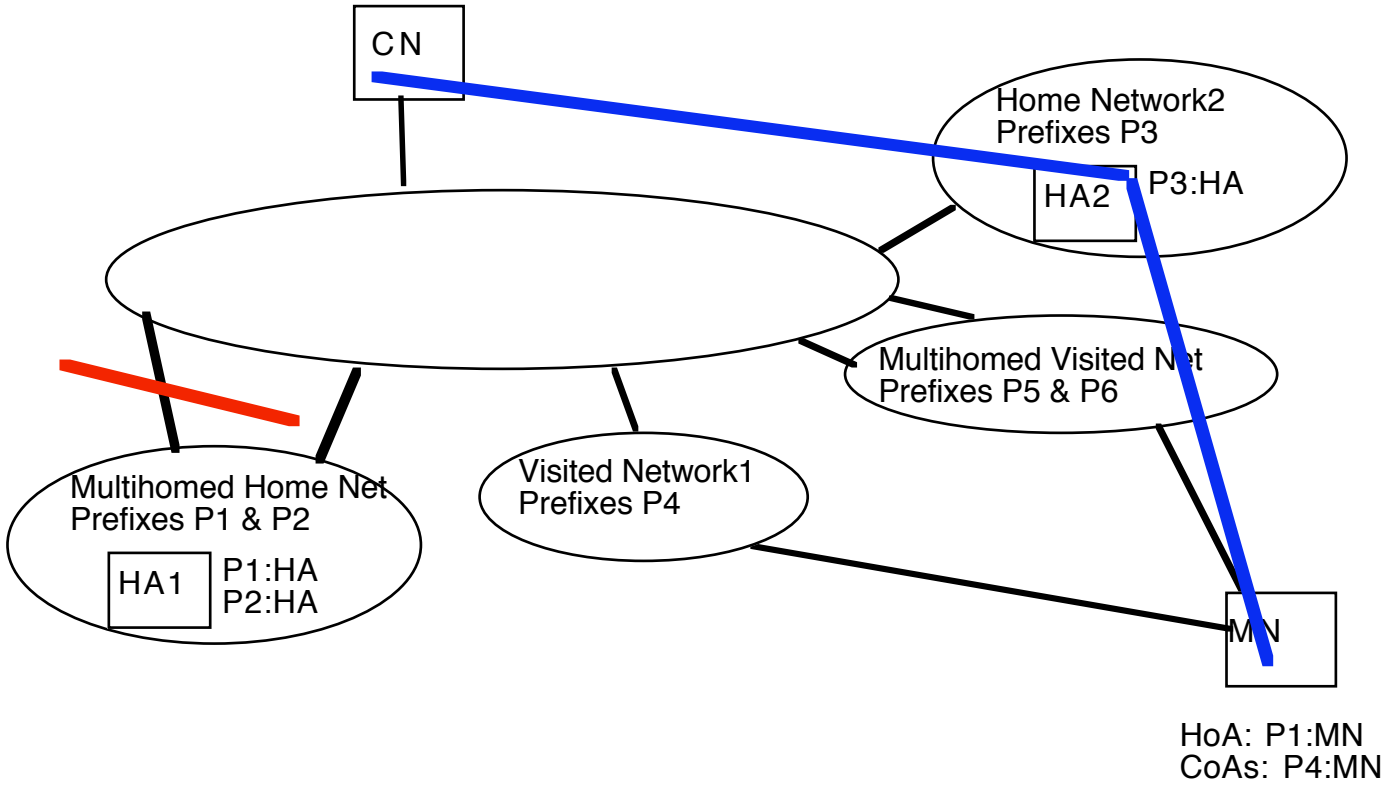
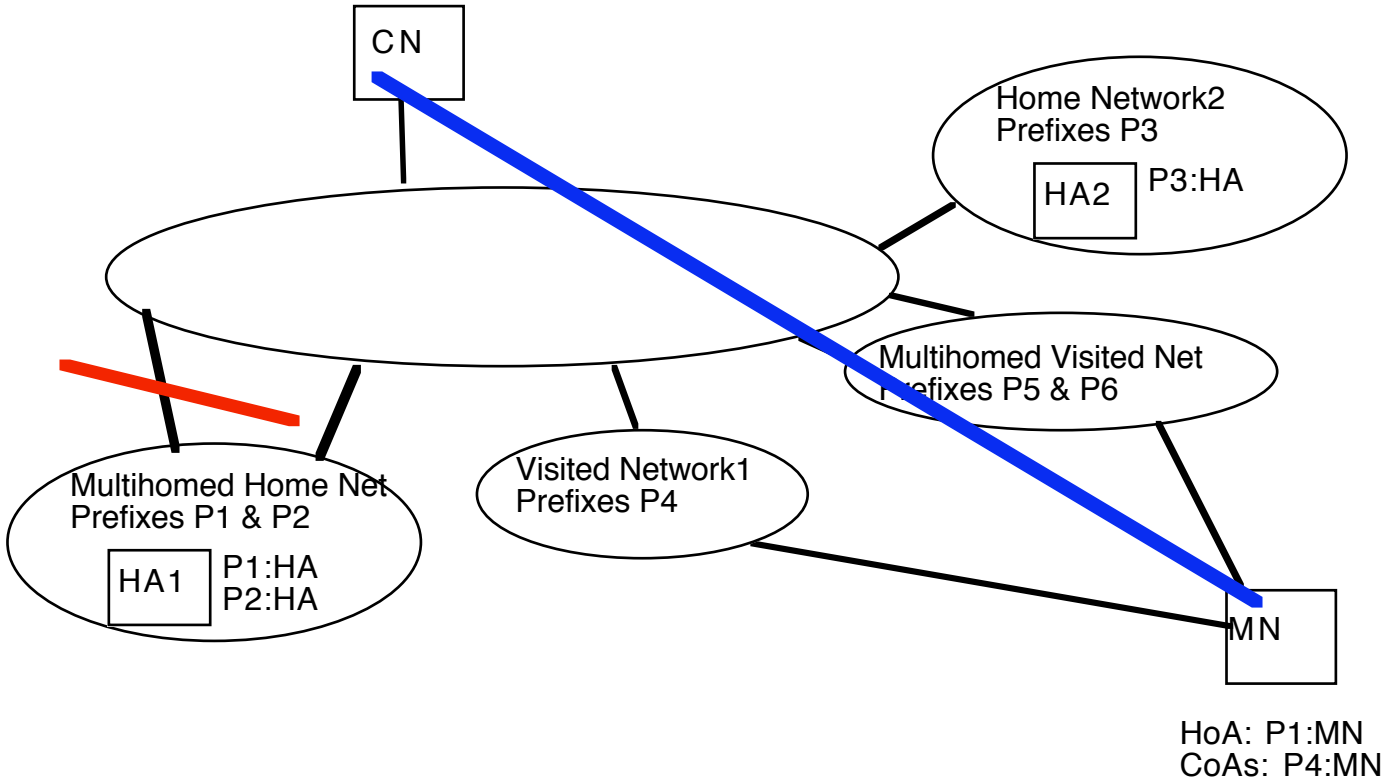
HoA: P1:MN
CoAs: P4:MN

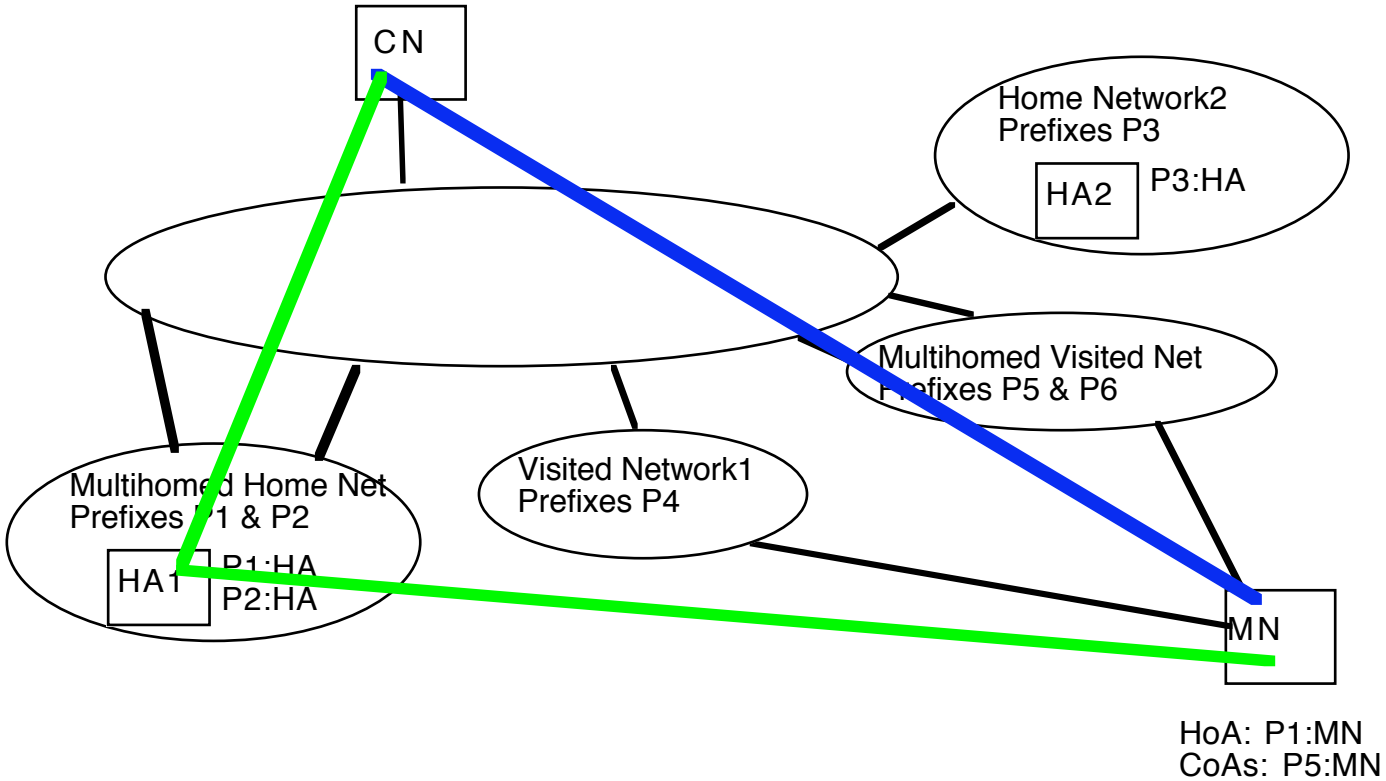
BT mode:
alternative locator = HoA



BT mode:
alternative locator = CoA



RO mode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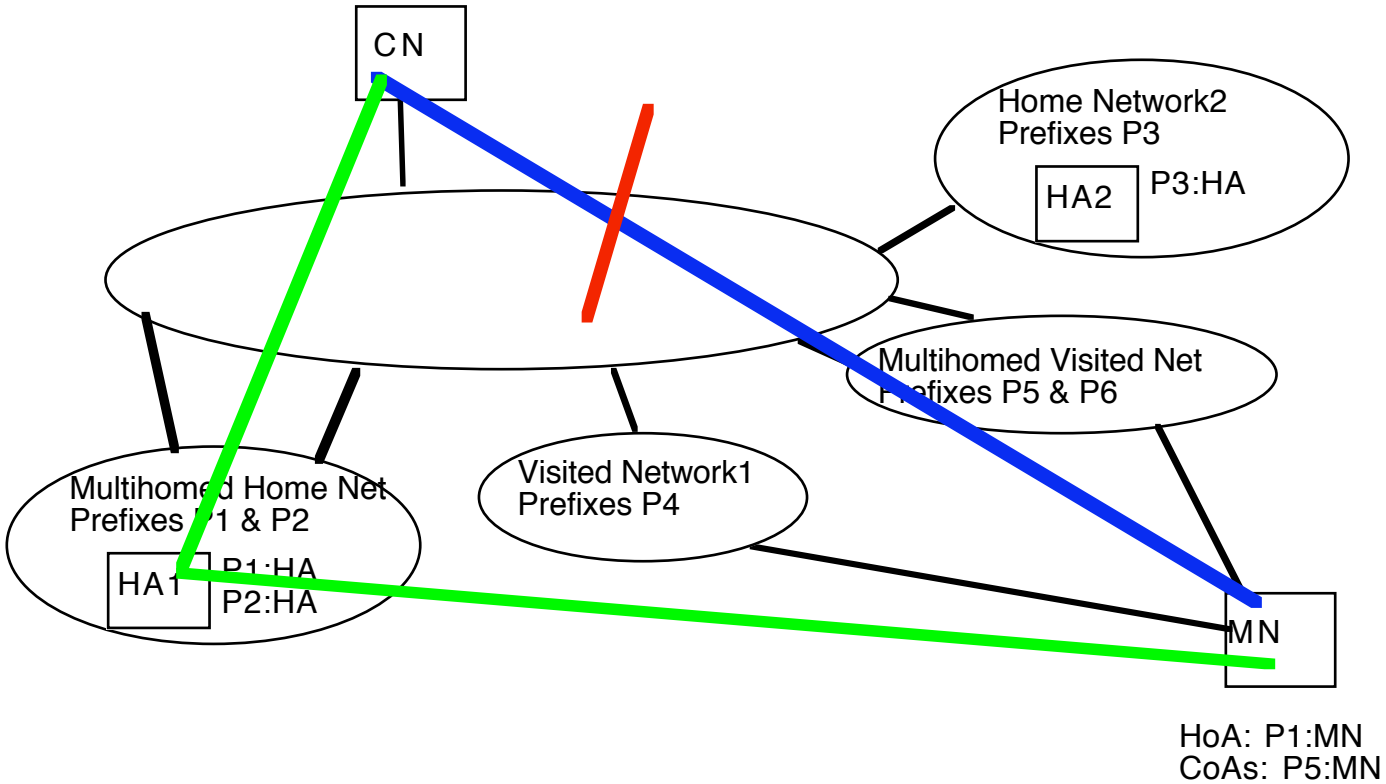
MN
HoA: P1:MN
CoAs: P5:MN

RO mode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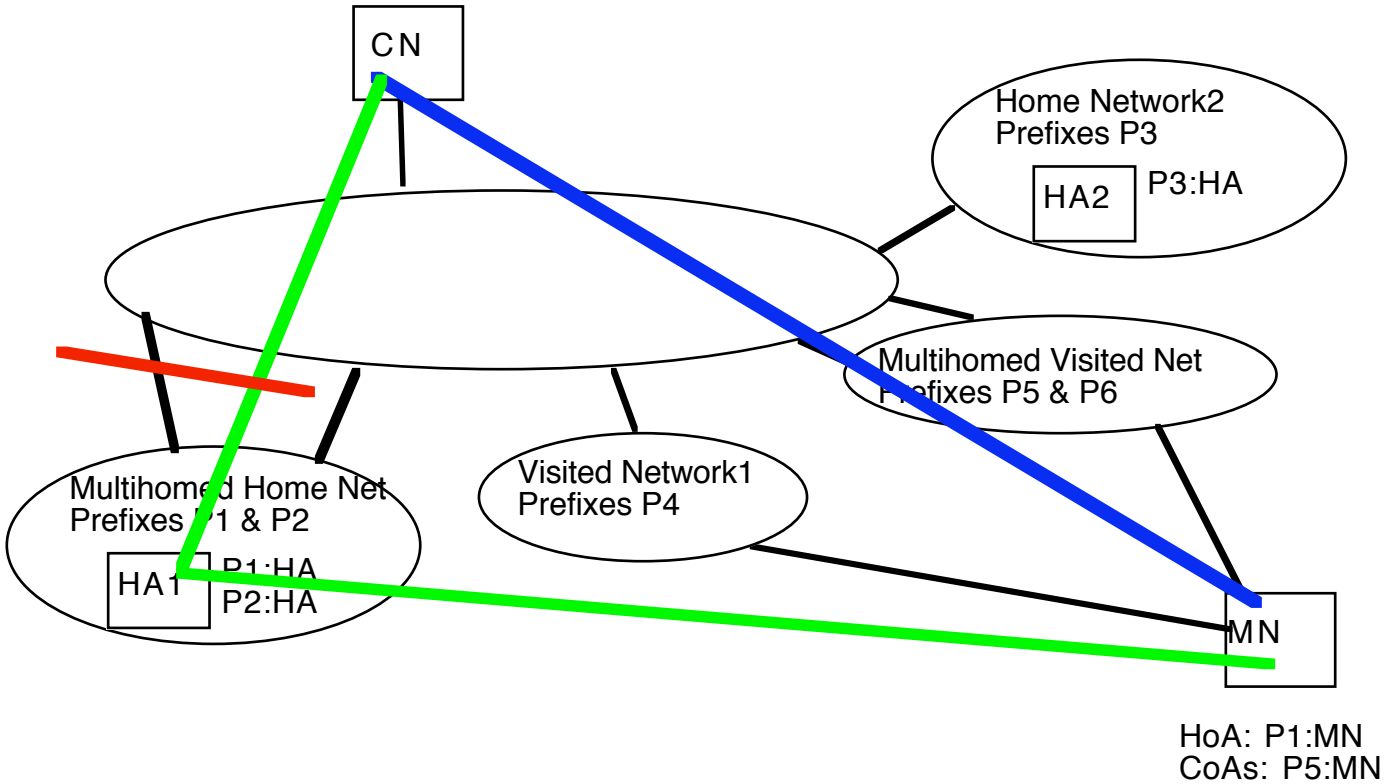
CoAs: P5:MN

RO mode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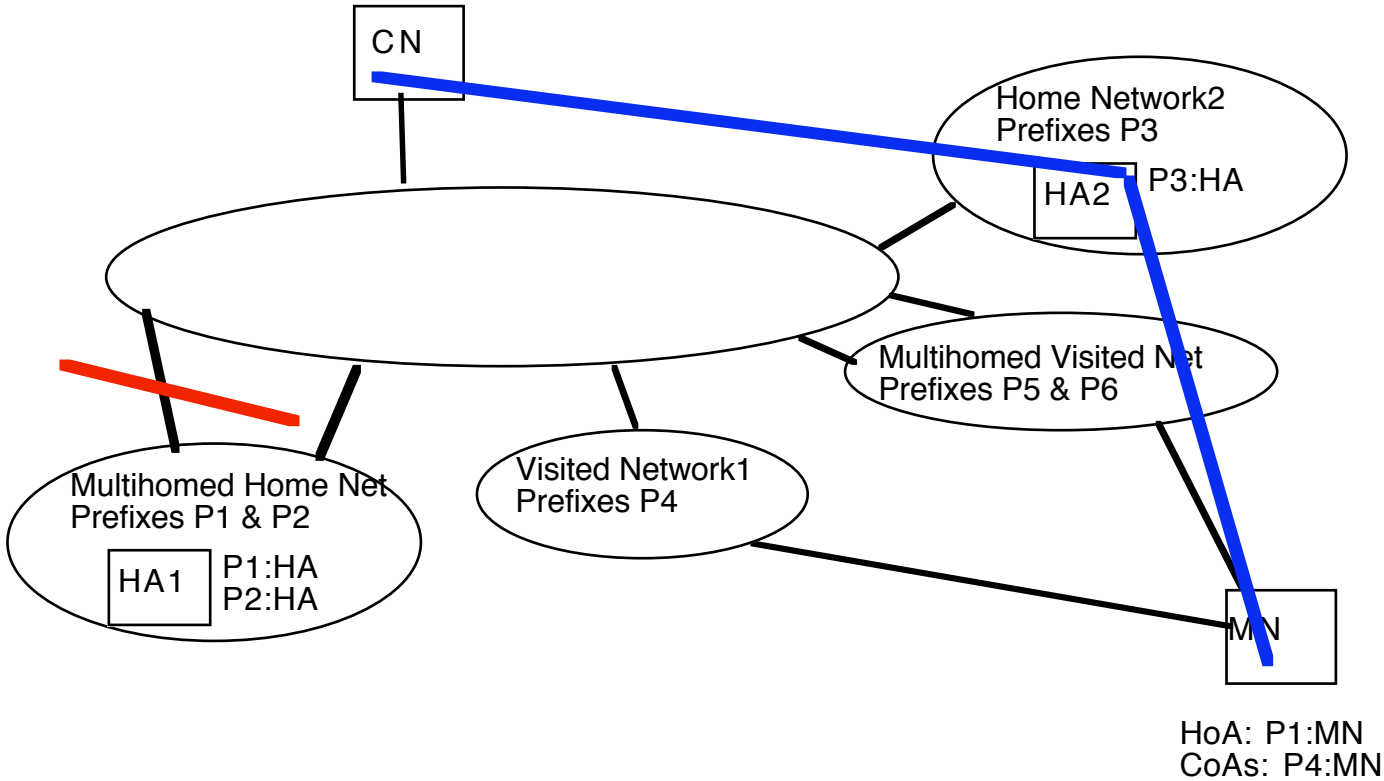
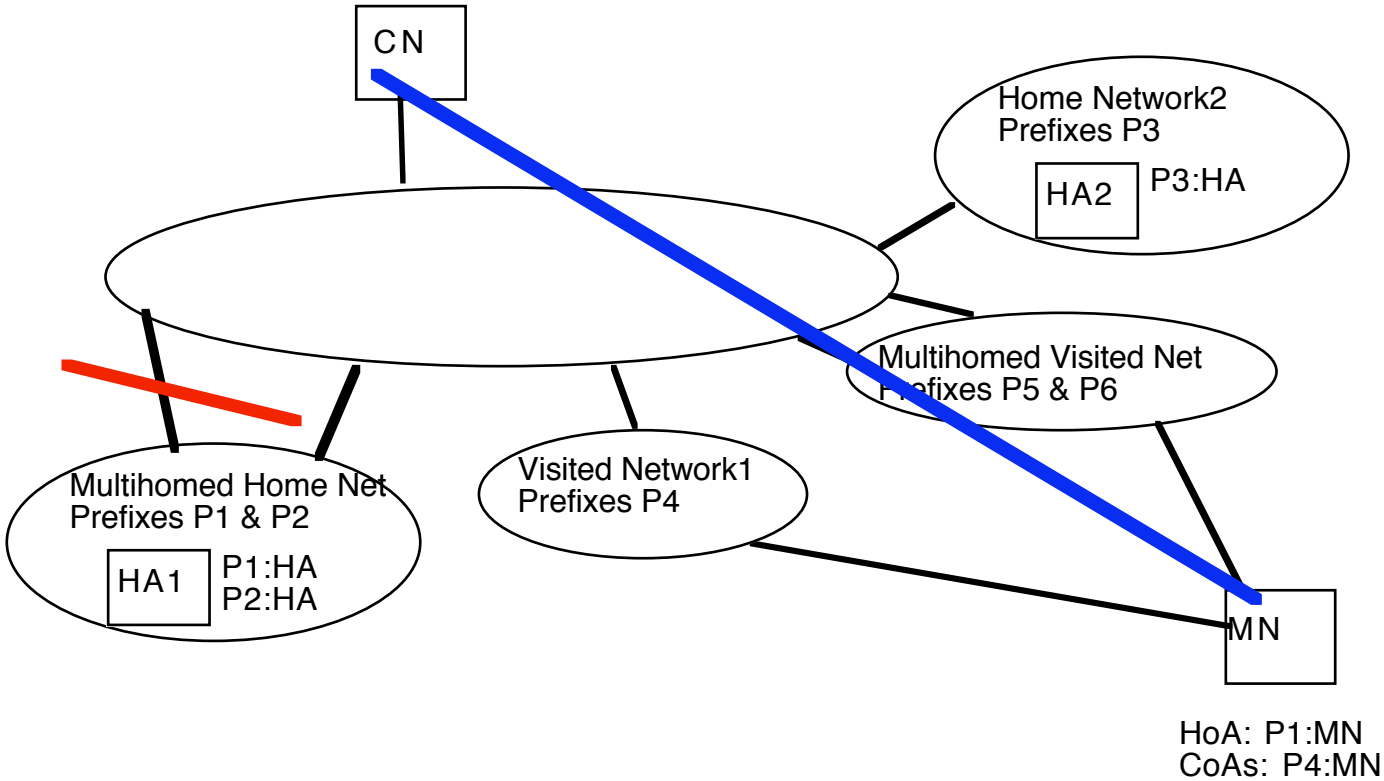
HoA: P1:MN
CoAs: P5:MN

RO mode:
alternative locator = HoA



RO mode: alternative locator CoA



Questions:

- Is it reasonable to expose the CoAs to the SHIM?
  - Do we need to have different type of addresses in the shim? (stable, temporary)

Stuff worth exploring

- SHIM6 between the HA and MN
  - at least the faildet and path exploration mechanisms