Route Optimization Support for PMIP6

Sangjin Jeong

ETRI

IETF-69 NetLMM WG @ Chicago

Objective

- Gauge WG's interest on Route Optimization (RO) support and initiate initial discussion
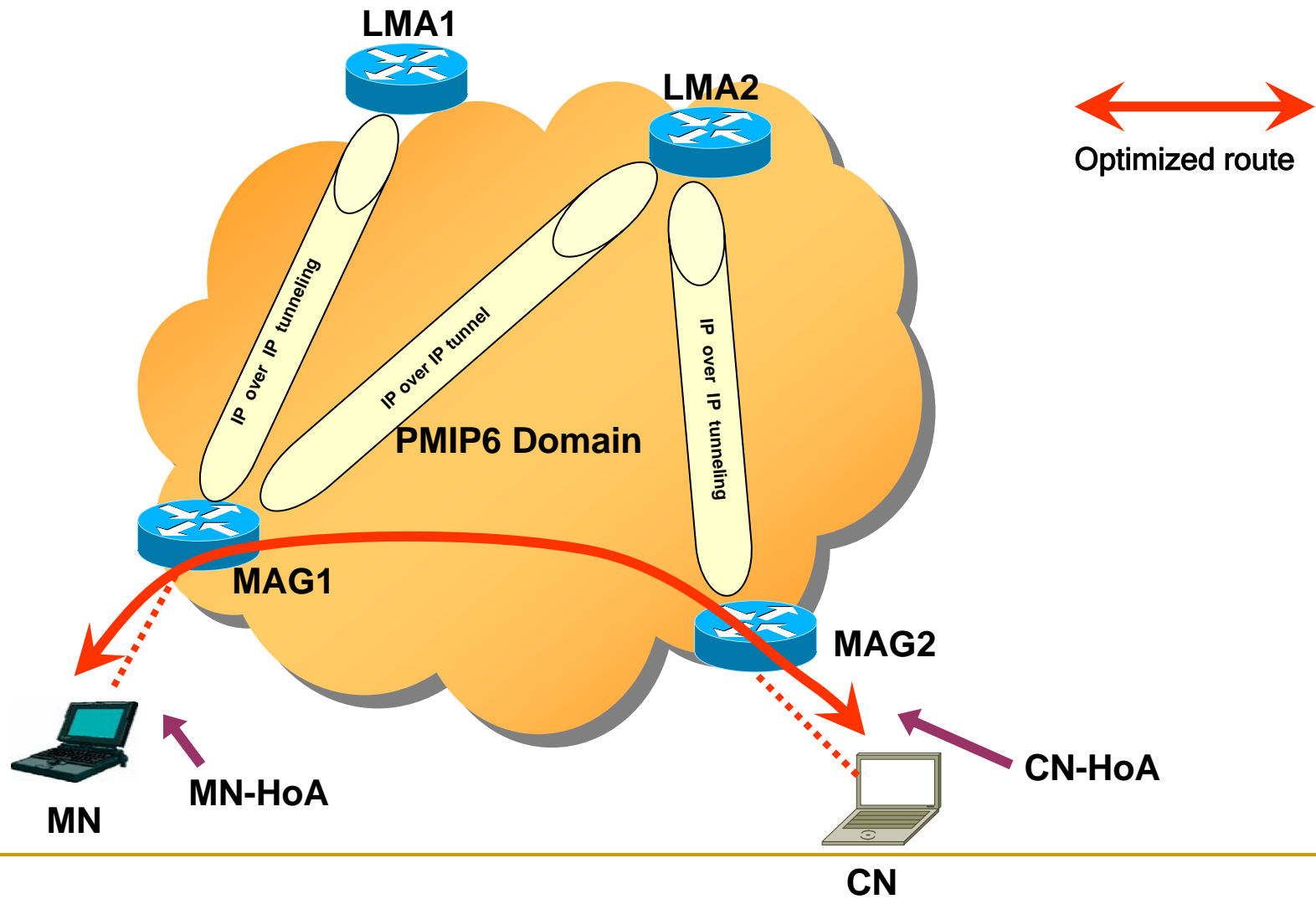- Discuss the issues for RO support by PMIP6

RO scenarios in PMIP6

- **Packets from/to a MN are routed via LMA by default**
    - Optimization in routing path is necessary

- **RO within a MAG**
    - MN and CN are within a MAG
    - Covered by PMIP6 base document (direct routing at the MAG)
- **RO across MAGs and within an LMA**
    - MN and CN are anchored to different MAGs
- **RO across LMAs**
    - MN and CN communicate across LMAs
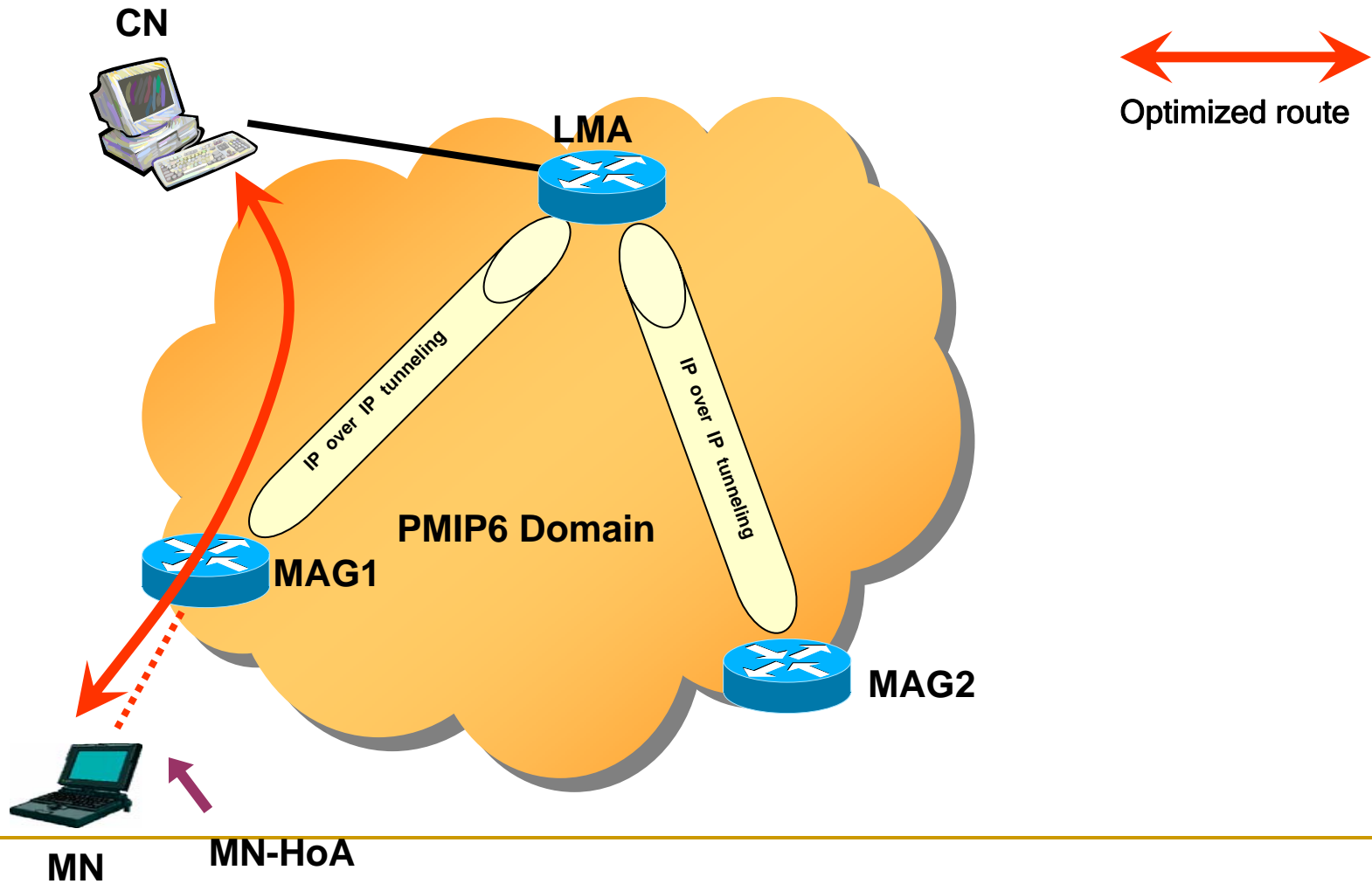- **RO between MN and CN, when CN is not within a PMIP6 domain**

RO across MAGs and within an LMA
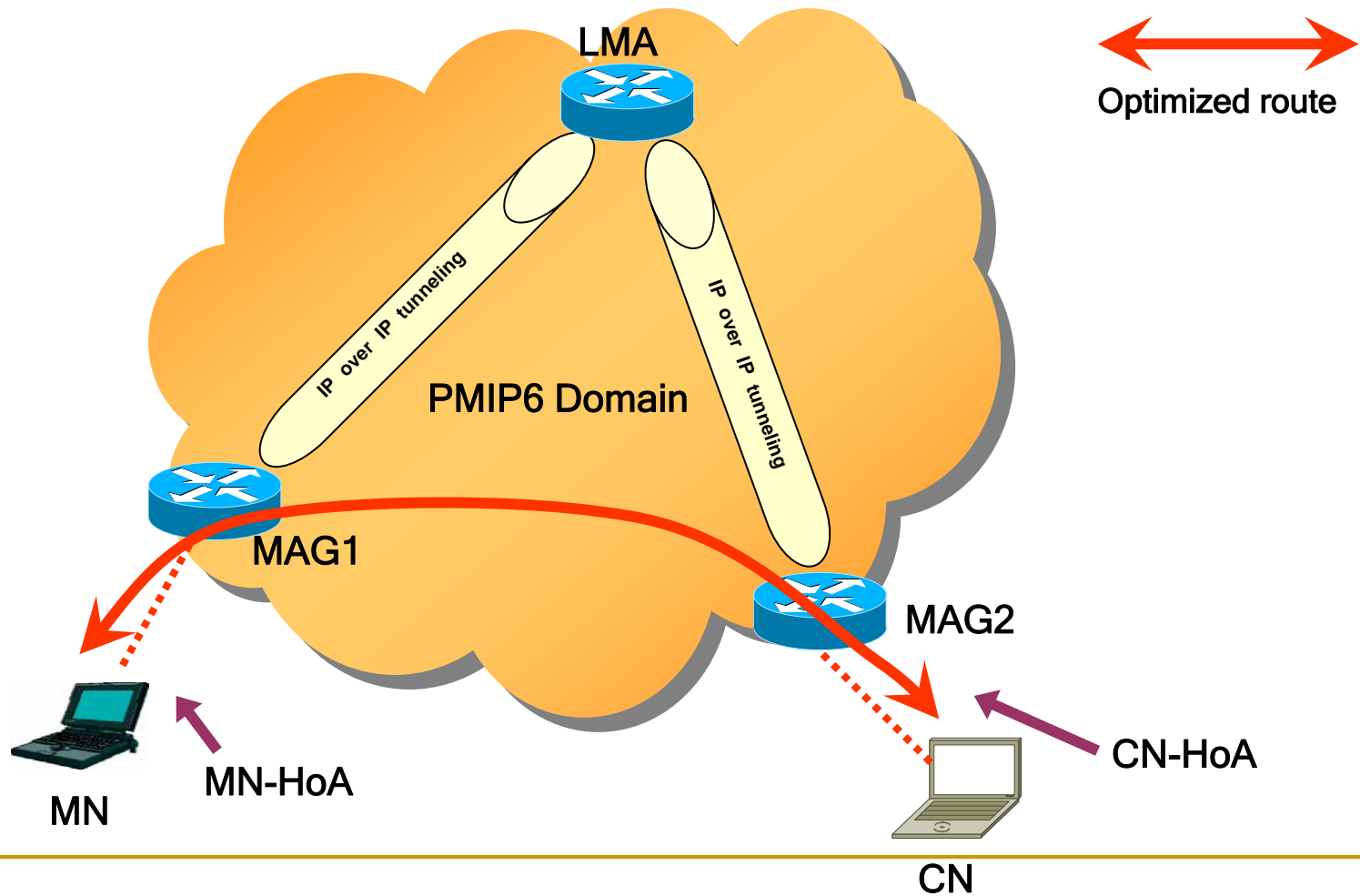
RO across LMAs

CN is not within PMIP6 domain

Issues and discussion

- **IPv4 support**
  - IPv4 Home address and transport support
  - NAT traversal solutions?
- **There are two (or more) approaches for RO support**
  - Leverage conventional MIP6 RO solution(s)
    - MAG performs RO on behalf of MN in PMIP6 domain
    - CoA test? (MAG's Proxy CoA?)
  - Develop a new solution may be also available for RO support
    - Utilize security infrastructure (trust relationship) between LMA and MAGs?

Next steps

- WG's sufficient interest on developing RO solution?

- If so,
  - Add RO to the charter on rechartering?
  - Form a design team and publish RO solution as an individual document before rechartering?