Proxy Mobile IPv6 extensions for Distributed Mobility Management

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Outline

- History & Status
- Overview
- Network-based DMM
- Next Steps

History & Status

- Adopted as WG document after London
- -01 version addresses all the comments received during the WG adoption call

Overview

- Network based DMM approach
  - Based on Proxy Mobile IPv6 (RFC 5213)
- Mobility management pushed to the edge
  - Access router level
- Partially distributed solution
  - Centralized control plane
    - A central node (kind-of LMA) stores mobility sessions of MNs
  - Distributed data plane
    - Only the edge routers handle the data forwarding

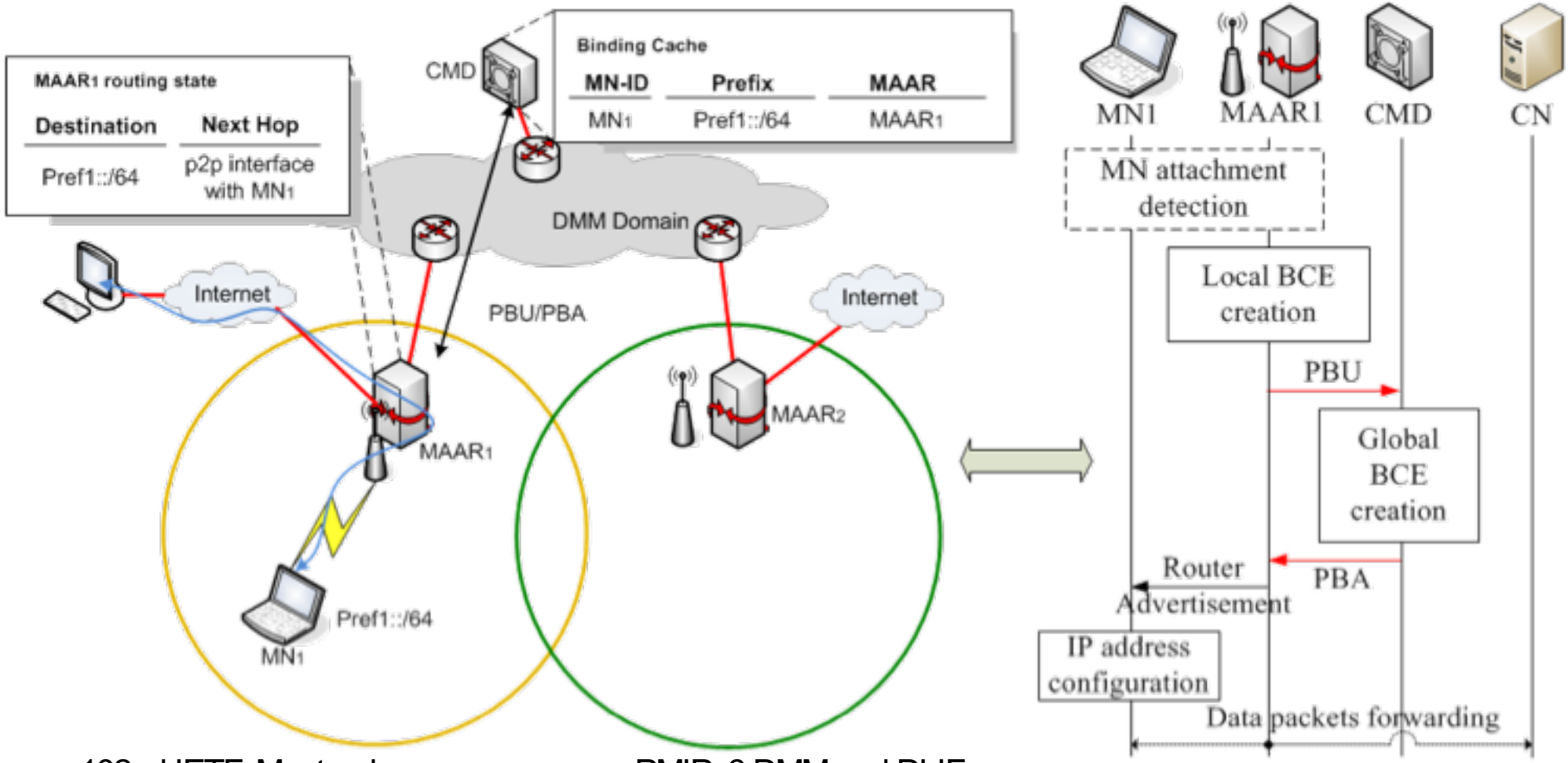
Network-based DMM: Entities

- Mobility Anchor and Access Router (MAAR)
  - One IP hop distance from the MN
  - Concentrates AR, LMA & MAG functions per-MN, per-prefix
    - Access-DPN, Home-DPA and Access-CPN
  - Delegates and anchors an IP prefix to each MN attached
    - Serving MAAR (S-MAAR)
    - Anchor MAAR (A-MAAR)
  - Forwards data packets to/from IP networks

- Central Mobility Database (CMD)
  - Central node storing the BCEs of all the MNs in the domain
    - H-CPA
  - It plays the role of the LMA for the control plane

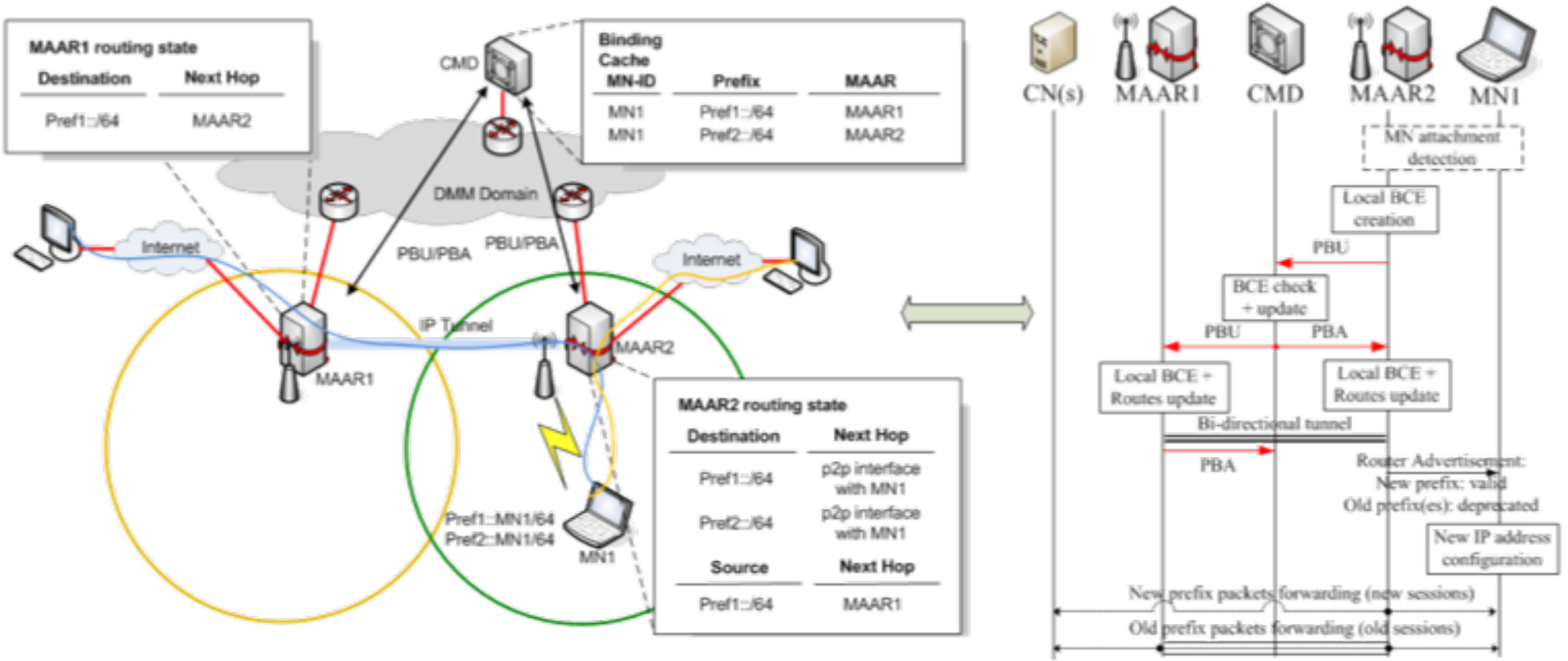
Network-based DMM
Operations: initial registration

- The S-MAAR registers the MN at the CMD through a PBU/PBA handshake



Network-based DMM
CMD as PBU/PBA proxy

- The CMD receives a PBU from the new S-MAAR announcing the MN attachment
- The CMD sends instructions to the S-MAAR and A-MAAR(s) on how to establish the proper routing configuration



Next steps

- Reviews needed
- Can we get some volunteers?