

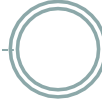
# PMIP Based DMM Approaches



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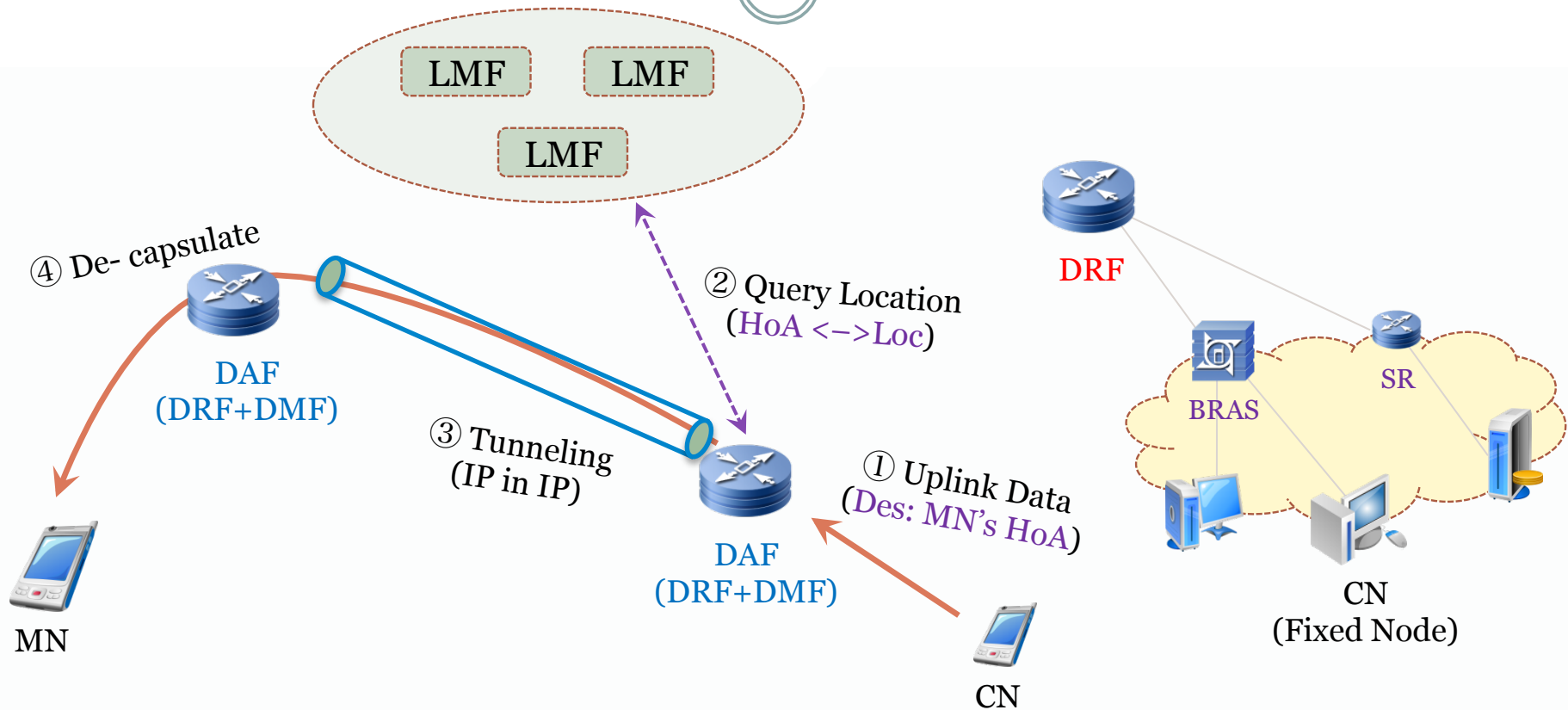
**DRAFT-LUO-DMM-PMIP-BASED-DMM-APPROACH-01**

# Overview



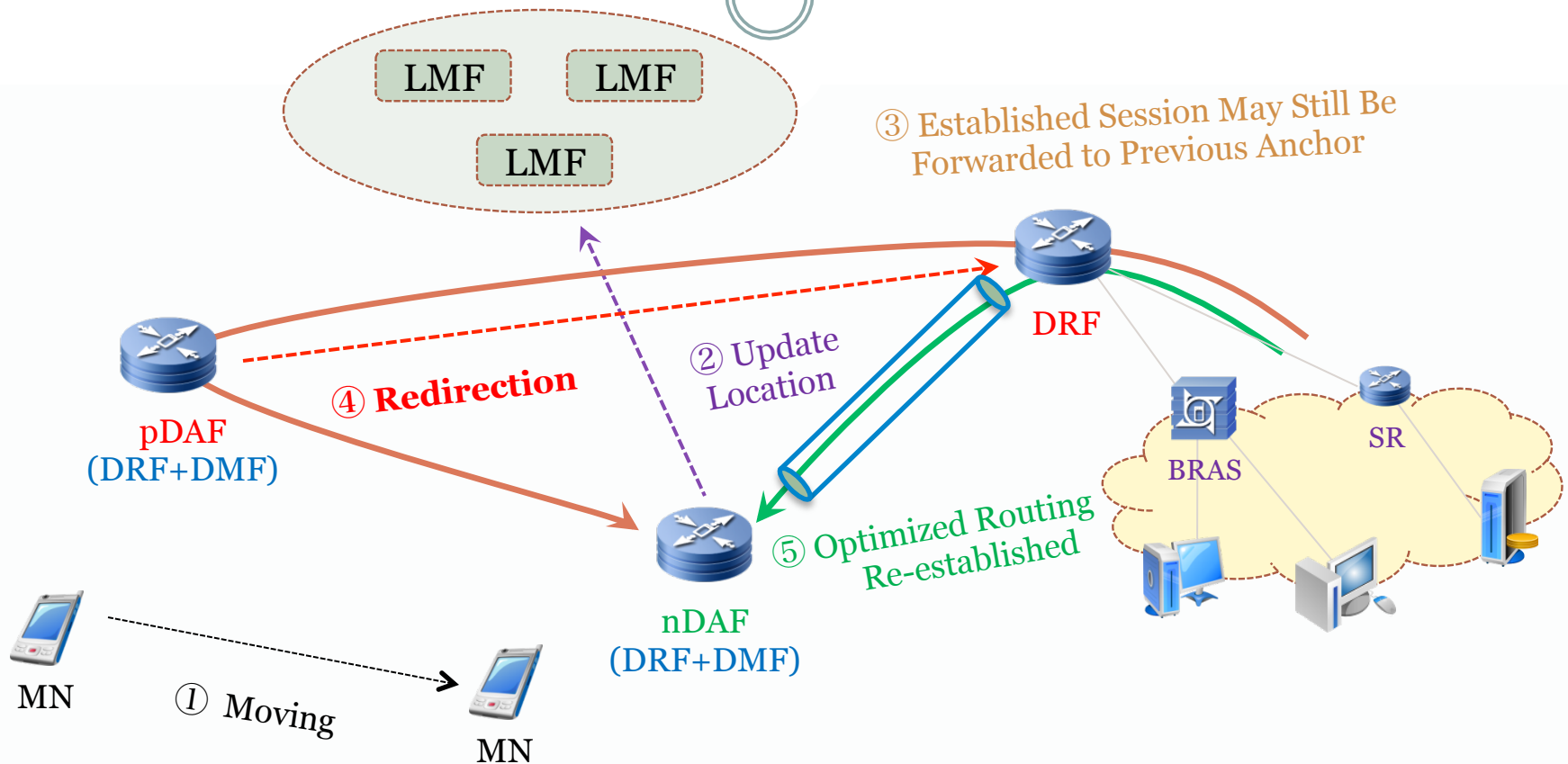
- Presented in IETF82, comments received
- Abstract two logic functions from previous version
  - **Distributed Anchoring Function (DAF)**, consists of two sub-functions
    - ✦ **Distributed Routing Function (DRF)**, enables optimized routing between MN-CN
    - ✦ **Distributed Mobility Function (DMF)**, enables relocation of MN's distributed anchor, i.e. transfer all sessions from one anchor to another
  - **Location Management Function (LMF)**, maintains mappings between MN's HoA and its location (e.g. CoA or LMAA)
- Two implementations of those logic functions
  - Implement **DAF in MAG** and **LMF in LMA**, OR
  - Implement **DAF in LMA** and **LMF independently** (as control plane)
- Considerations when CN is a fixed node

# Querying Location and Tunneling



- All network-side NEs involved belong to a same administrative domain
- LMF manages terminals IP/Prefix-Location mappings.
- Fixed nodes which don't move can access via routers with DRF (no DMF required)
  - Otherwise, no optimized routing will be enabled
- DRF can also be deployed with border gateway of the domain

# Anchor Relocation

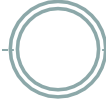


- MN moves to next distributed anchor, its location should be updated
- All sessions of MN will be forwarded via the next anchor
- Established session should be re-directed to the next anchor
- No packet loss, theoretically

# Security & Difference with LR



- **Security**
  - Signaling for location update & query between DAF and LMF, and among LMFs
    - ✦ Similar mechanism with PMIP
  - Signaling for anchor relocation among DAFs
    - ✦ End-to-end security association is required
  - Data forwarding tunnel between DAFs
    - ✦ Similar mechanism with Localized Routing Spec.
  - Scenarios in which DAFs or LMFs belong to different administrative domain are out of scope of this draft
- **Difference with Localized Routing**
  - LR allows traffic be routed by MAGs directly, those MAGs can be considered as a sort of distributed anchor. Gaps :
    - ✦ MNs are attached to different MAGs and registered with different LMAs
    - ✦ Minimum packet loss during handoff when optimized routing is established
    - ✦ CN who is a fixed node



*Thanks*