Basic practices for DMM deployment

draft-seite-dmm-dma

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Use-Case for DMM

Motivation: bring mobility support to distributed content

Guidelines:
- Distribute Mobility Anchoring closer to MN/CDN
- Reuse, as much as possible, existing mobility protocols
Functional description

• Description based on generic mobility functions
  – Location update (LU)
  – Location management (LM)
  – Mobility Anchoring (MA)
  – Termination of mobility Redirection (TR)

• Application to PMIP/MIP based design is considered
Basic DMM implementation

• Distribute MA (e.g. HA/LMA) in access routers

• Dynamic mobility management
  – MM functions come into play after handover

• No issue, a priori...
Basic DMM implementation

- Distribute MA (e.g. HA/LMA) in access routers
- Dynamic mobility management
  - MM functions come into play after handover

- Issue with distribution of MA with PMIP:
  - how does the LU (in AR2) know the mobility anchor for pref#1?
  - i.e. how LU get location of the LM?

PMIP based (HA and MAG in ARs)
Host based DMM

- The MN sends anchoring information to the current AR (i.e. to the LU)
  - Difference with MIP based DMM: LU and TR separation
  - new piece of protocol on the MN/AR interface, or information provided in the RS...
Network based DMM

• The LU function retrieves per-MN anchoring information without the help of the MN
  – E.g. relying on a anchoring location database

• If using a Location DB:
  • A DMM specific entity or DMM extension to the PMIP policy store
  • AR/DB protocol
    • AR request request information
    • maintain mobility states: DB updated when AR allocates a prefix
Conclusions

• We suggest to consider Distributed and Dynamic Mobility Anchoring as the basic practice for DMM
  – Do the gap analysis on DMA
  – For both host-based and network-based mobility management