Inter Home Agents
HAHA Protocol

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Problem Statement

- # NEMO inconsistency
  - L2 centric by MIP6 inheritance
  - L3 centric to manage MNP routes

- # Redundancy
  - HA is single point of failure of NEMO basic support
  - Another HA should be able to take over

Problem Statement cont.

- ## Load balancing
  - HA becomes considerable bottleneck of communication in terms of high load caused by tunneling

- ## HA preference
  - If a mobile router moves over a wide area, it is better to use a closer home agent
    - ex. Airplane flight from Japan to USA
 - Correspondent Nodes can use the nearest Home Agent

HA Distribution

- Configure multiple home agents regardless of topological position
  - Local distribution for high availability
  - Remote distribution for some degree of multihoming and route optimization
- Each home agents advertises distributed home network prefix
- A binding and mobile network prefix for a particular mobile router is synchronized among all home agents

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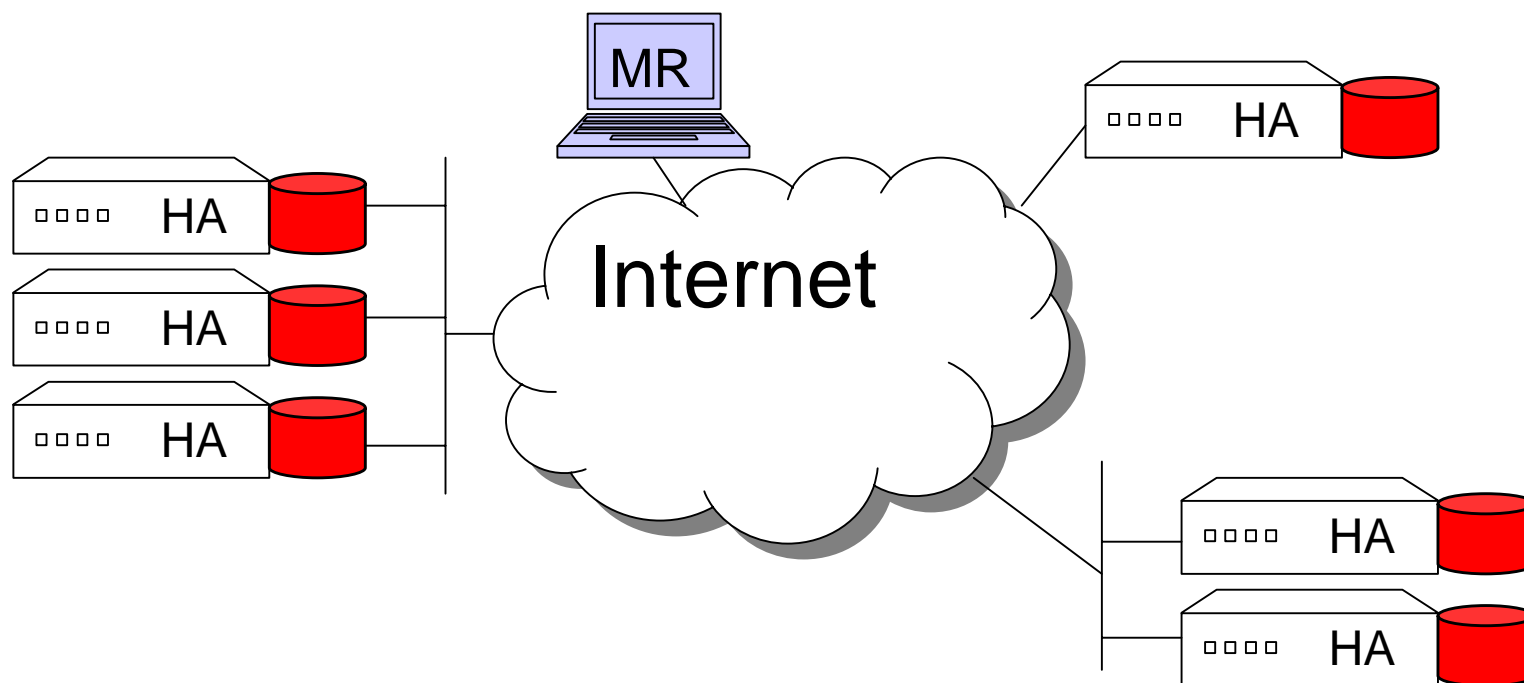
Multiple Home Agent Support

- activate multiple home agents simultaneously in terms of binding synchronization

- reduce hoplimit of redundant route path in terms of multiple home agents activation
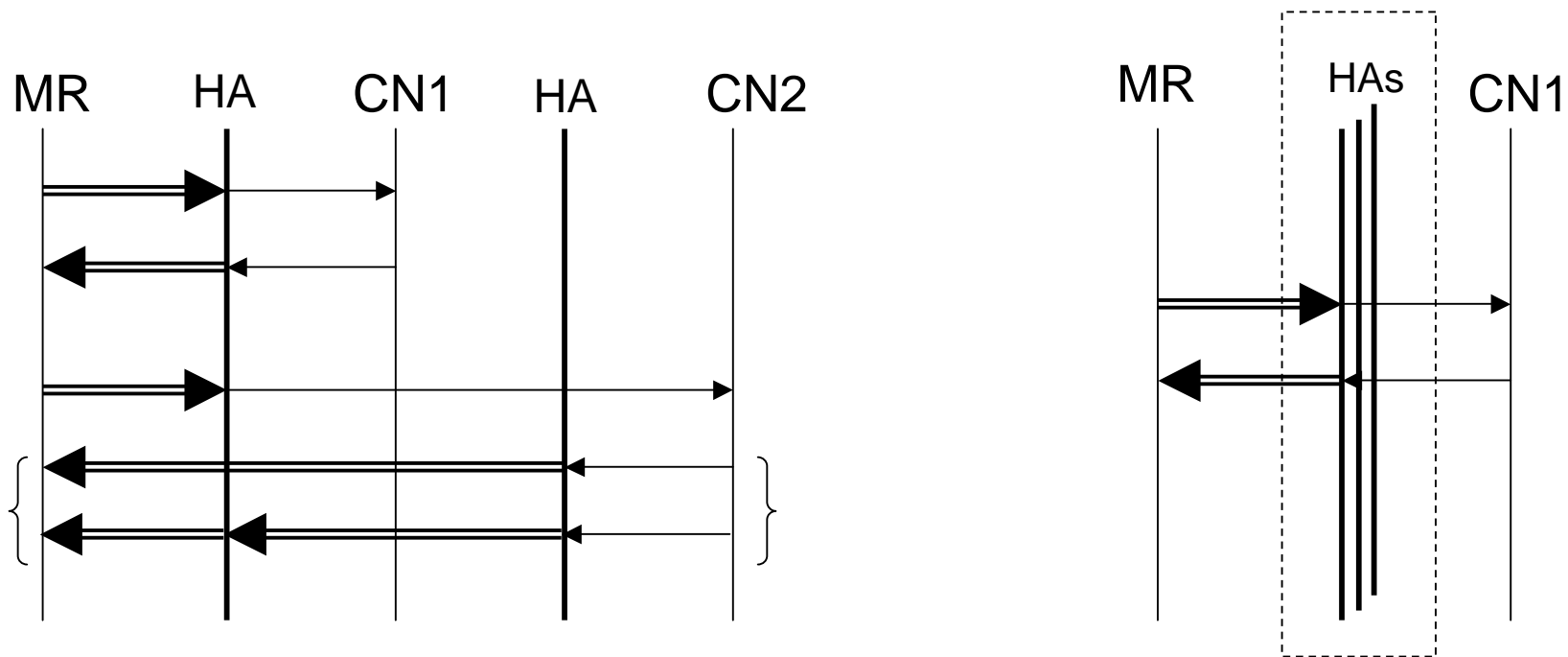
HA Selection

- MR can associate with the best available home agent depending on its location, HA load, preference, etc
- Two schemes
  - MR initiated switching
    - MR detects the high round trip time or considerable delay, it can request to switch its primary HA
  - HA initiated switching
    - If HA detects its overload or trouble (need reboot), it can ask MR to change their primary home agent to new one
    - If HA detects there is better HA rather than it for MR, it can force MR to switch primary HA to the better HA

End

- Question??