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Multihoming extensions for Proxy Mobile IPv6 draft-bernardos-mif-pmip-01

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Hiroshima, MIF WG, 2009-11-09

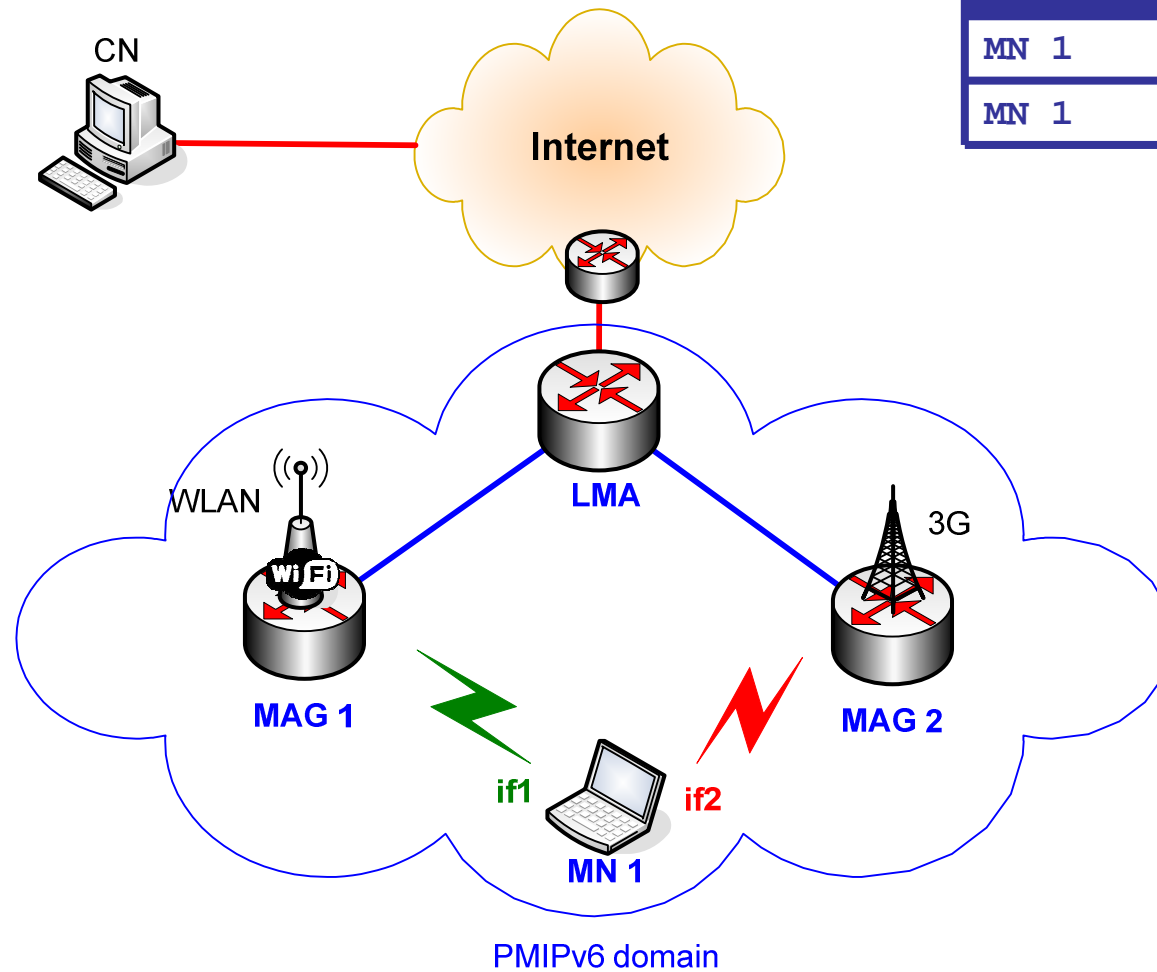
Motivation

- Current PMIPv6 spec (RFC 5213) allows for some limited multihoming support
 - Basically, it supports a multi-interfaced MN (MIF node) to attach to a PMIPv6 domain
 - Each interface is managed by a different mobility session
 - Doesn't fully support the case of an MIF node attaching to a PMIPv6 domain
 - E.g., flow mobility scenarios
- Approach based on the MIF node implementing the weak host model

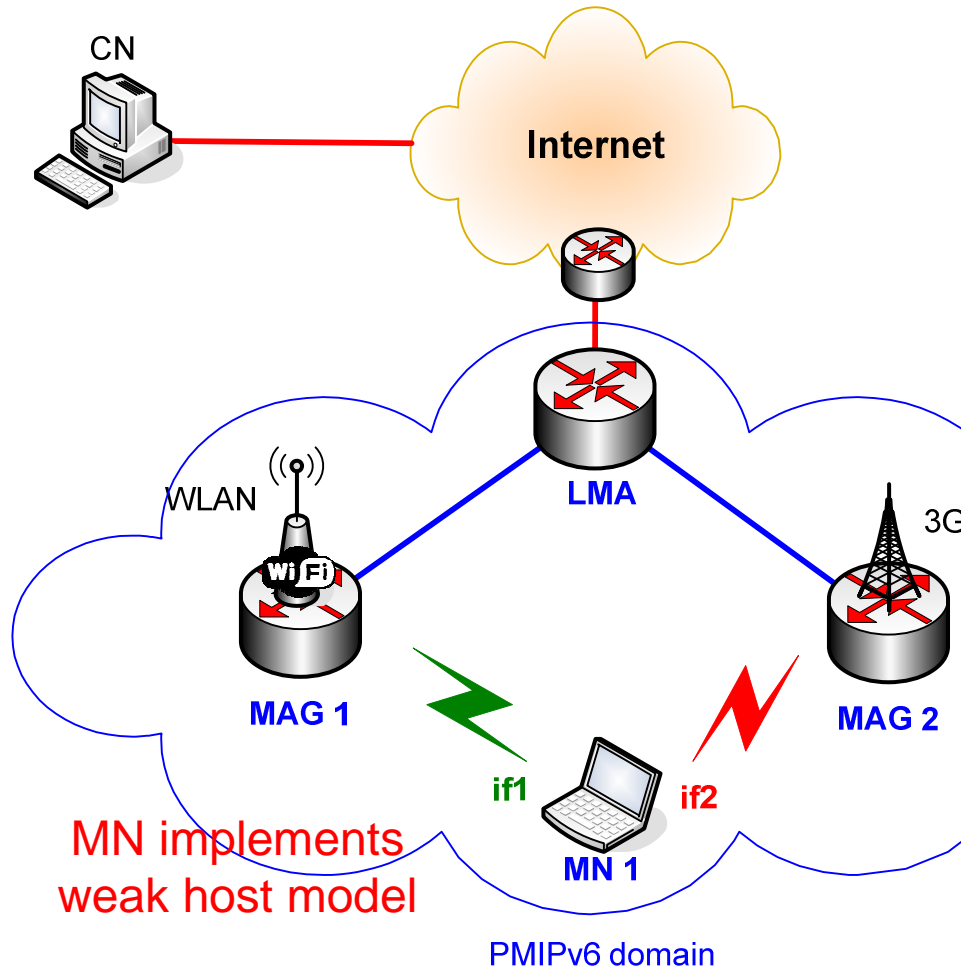
Use case. RFC5213

LMA Binding Cache

MN-ID	MN-LL-ID	PREFIX	MAG
MN 1	MN:if1	pref1	MAG 1
MN 1	MN:if2	pref2	MAG 2



Use case. Proposed approach



LMA Binding Cache

MN-ID	MN-LL-ID	PREFIX	MAG
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LMA Policy/Routing Cache

flowID(src, dst, ports)	Next Hop
flow1(CN, pref1::if1,...)	MAG 2
flow2(CN, pref2::if2,...)	MAG 2
...	
flowN(CN, pref2::if2,...)	MAG 1

MAG 2 routing table

DESTINATION	Next Hop
pref2::/64	directly connected
pref1::if1	directly connected
::/0	LMA

Use case. Proposed approach

- MN considerations
 - Weak host model
 - Some experiments performed
 - Automatic configuration of weak host model should be possible
- LMA considerations
- MAG considerations
- DL and UL considerations