Proxy Mobile IPv6 Extensions to Support Flow Mobility
draft-ietf-netext-pmipv6-flowmob-02

Carlos J. Bernardos (Ed.) – Universidad Carlos III de Madrid

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Overview of the draft

- Describes enhancements to the PMIPv6 required to support network based flow mobility over multiple physical interfaces
- Assumes that the mobile node implements the logical interface model (draft-ietf-netext-logical-interface-support)
  - MN capable of supporting traffic flows on different physical interfaces regardless of the assigned prefixes on those physical interfaces

Scope

- Three different mobility scenarios are considered:

1. At the time of a new network attachment, the MN obtains the same prefix or the same set of prefixes as already assigned to an existing session

2. At the time of a new network attachment, the MN obtains a new prefix or a new set of prefixes for the new session (default RFC 5213 behaviour)

3. At the time of a new network attachment, the MN obtains a combination of prefix(es) in use and new prefix(es) (hybrid of the previous two)

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Requires signalling to enable relocating flows for prefixes not shared between the MAGs

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Changelog

- draft-bernardos-netext-pmipv6-flowmob-03 adopted as working group document in August 2011 (after Quebec meeting)
  - draft-ietf-netext-pmipv6-flowmob-00 submitted in September 2011
  - Current version (draft-ietf-netext-pmipv6-flowmob-02) submitted end of October 2011

Next steps

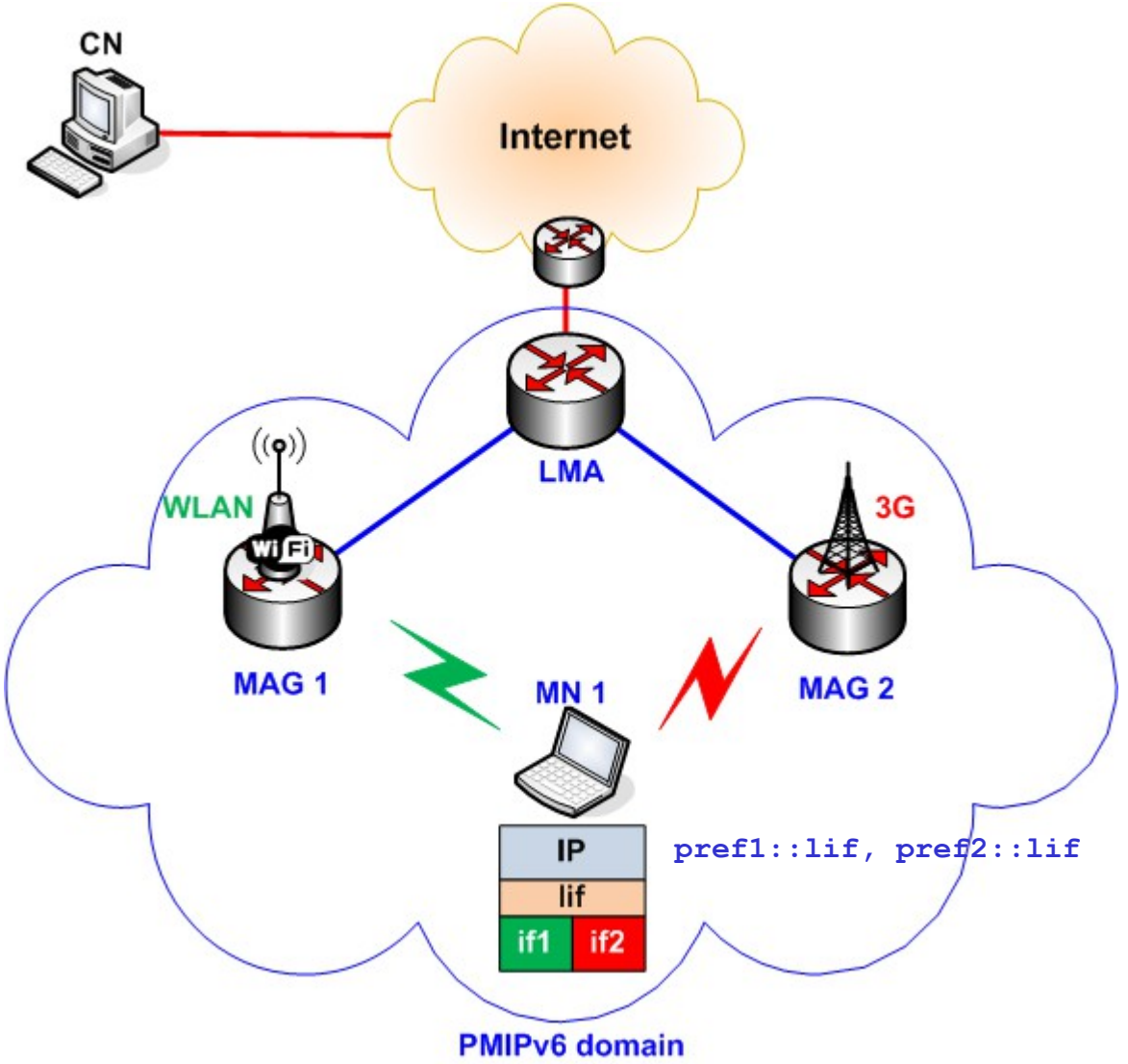
- Use the issue tracker to agree on modifications to the current version
- Work on Security Considerations section
- Goal - Have a version ready for WGLC by next IETF

Backup slides

Overview of the draft

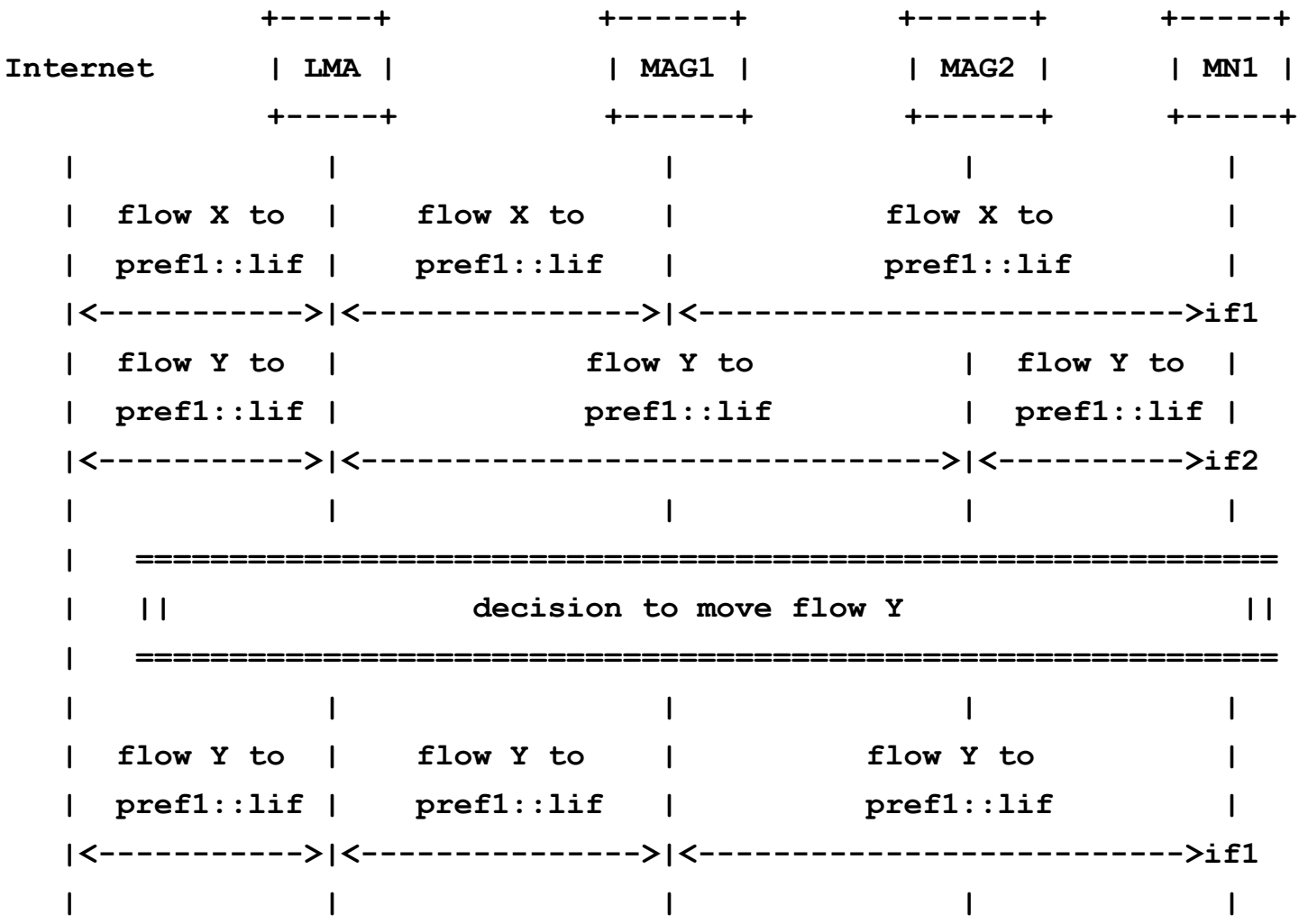
- In all the scenarios, the MAGs should be aware of the prefixes for which is going to receive uplink (UL) or downlink (DL) traffic
- These prefixes might not be limited to those delegated by the MAG upon attachment of the connected interface
  - In these cases, signaling is required
  - The solution re-uses some of the terminology and mechanisms of the flow bindings and multiple care-of address registration specifications
- Once the network is configured with the right set of prefixes, the actual flow mobility can take place at any time thereafter (e.g., by redirecting DL or UL packets from one access to another)

Basic operation



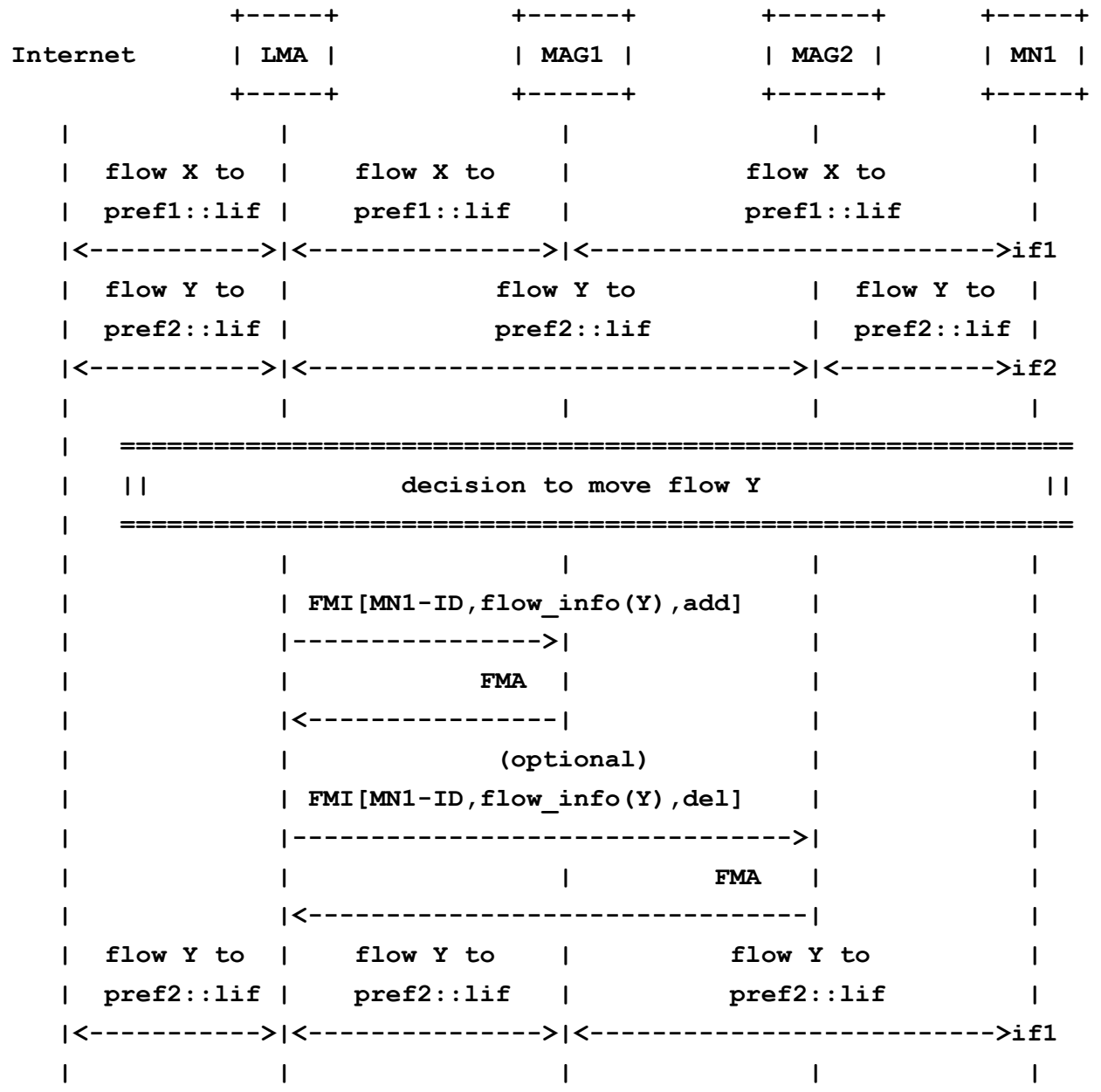
Basic operation

MN sharing a common set of prefixes on all MAGs



Basic operation

MN with different sets of prefixes on each MAG (a)



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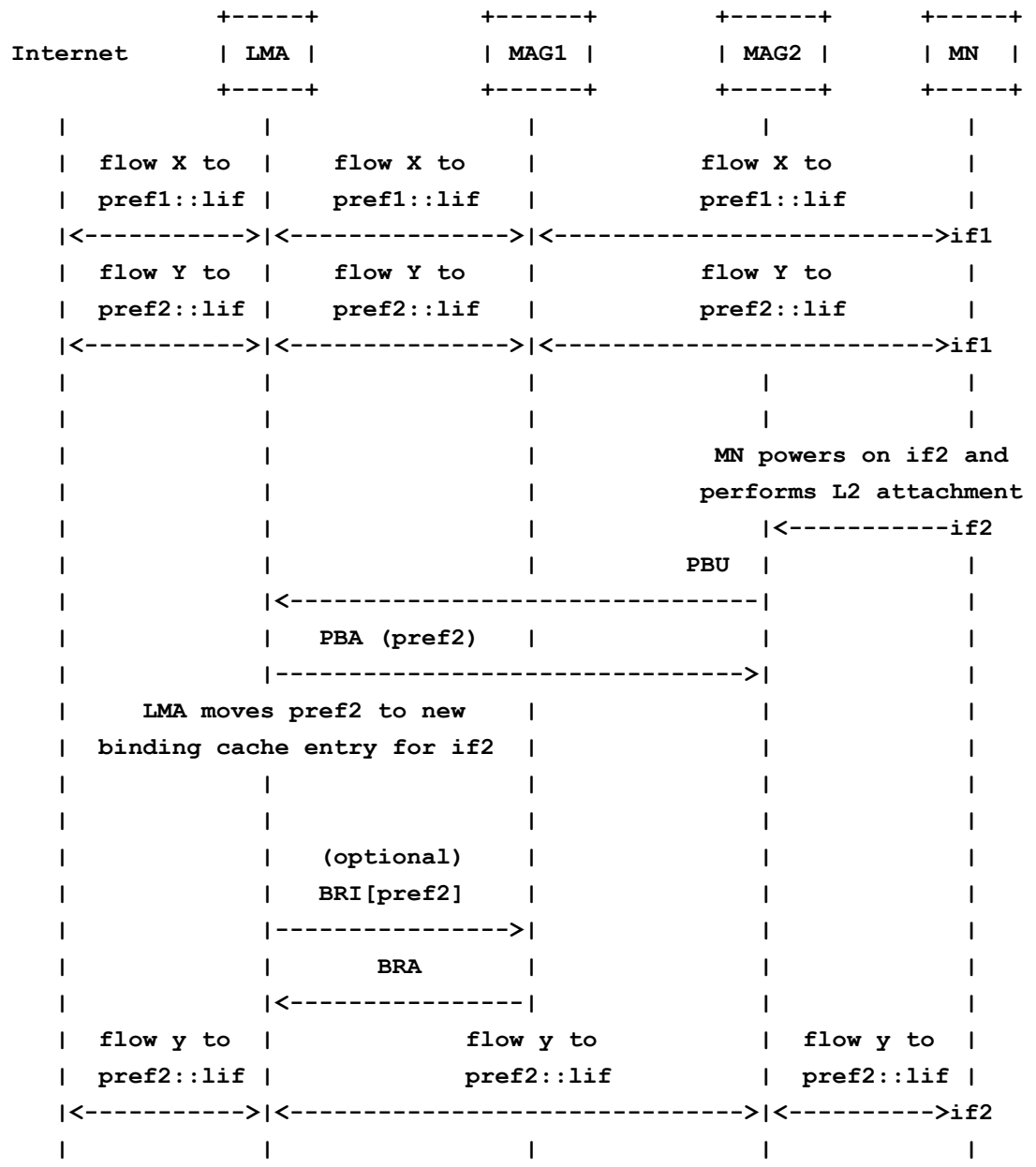
MN with different sets of prefixes on each MAG (b)