Proxy Mobile IPv6 Extensions to Support Flow Mobility
draft-bernardos-netext-pmipv6-flowmob-00

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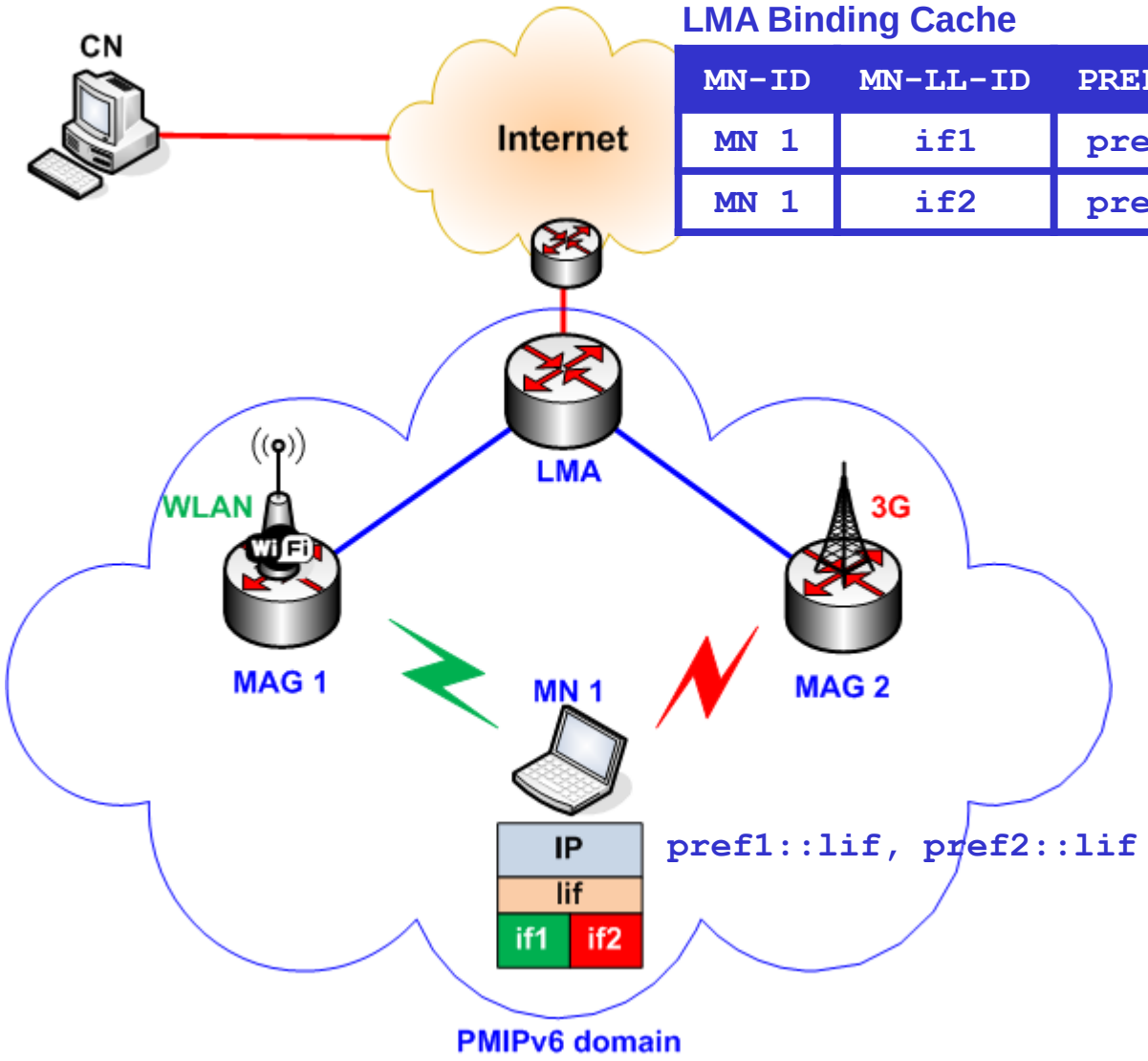
Flow mobility solution (in a glimpse)

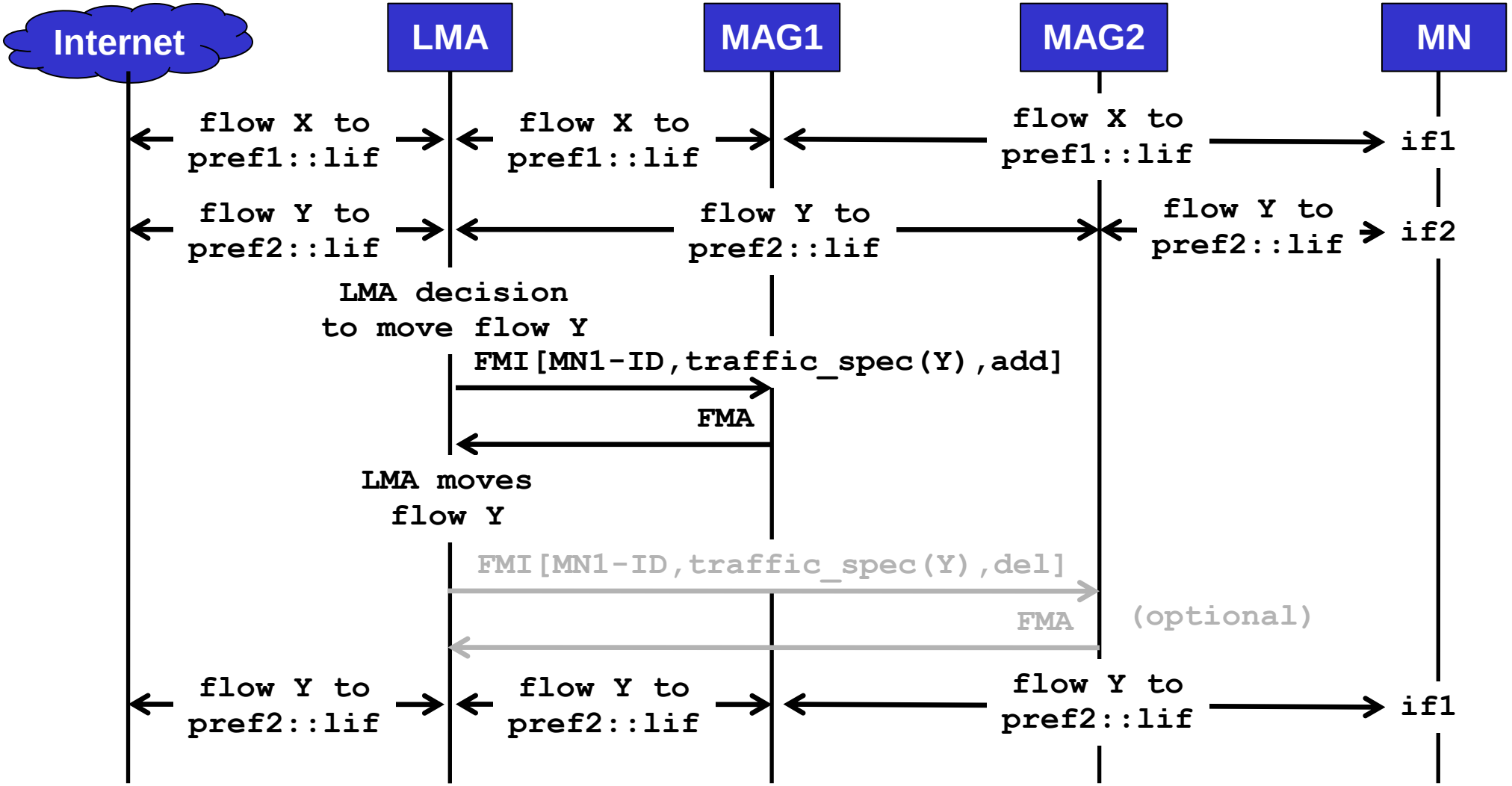
- Flow mobility controlled by the LMA
  - Triggers out of scope of the spec
- LMA-MAG signaling and new conceptual data structures defined
- 2 different flow mobility scenarios supported
  - Unique prefix per physical interface
  - Shared prefix across physical interfaces
- Assumes the MN implements the Logical Interface model, as described in draft-melia-netext-logical-interface-support-01

Unique prefix per physical interface
Scenario



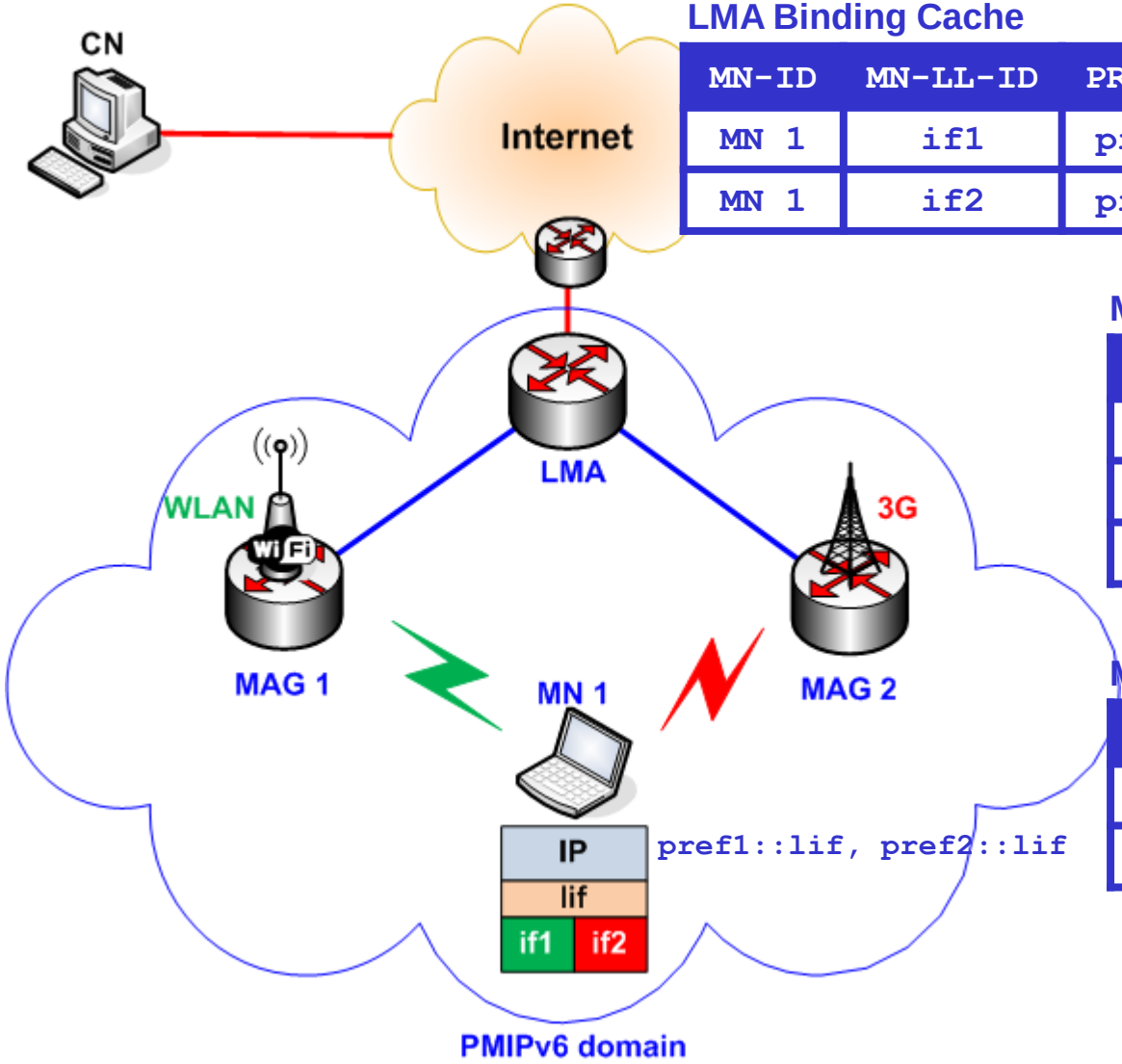
Unique prefix per physical interface

Signaling



Unique prefix per physical interface

Conceptual data structures



LMA Binding Cache

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

LMA flowmob state

MN-ID	flow	MAG
MN 1	flow X	MAG 1
MN 1	flow Y	MAG 1

MAG1 routing state

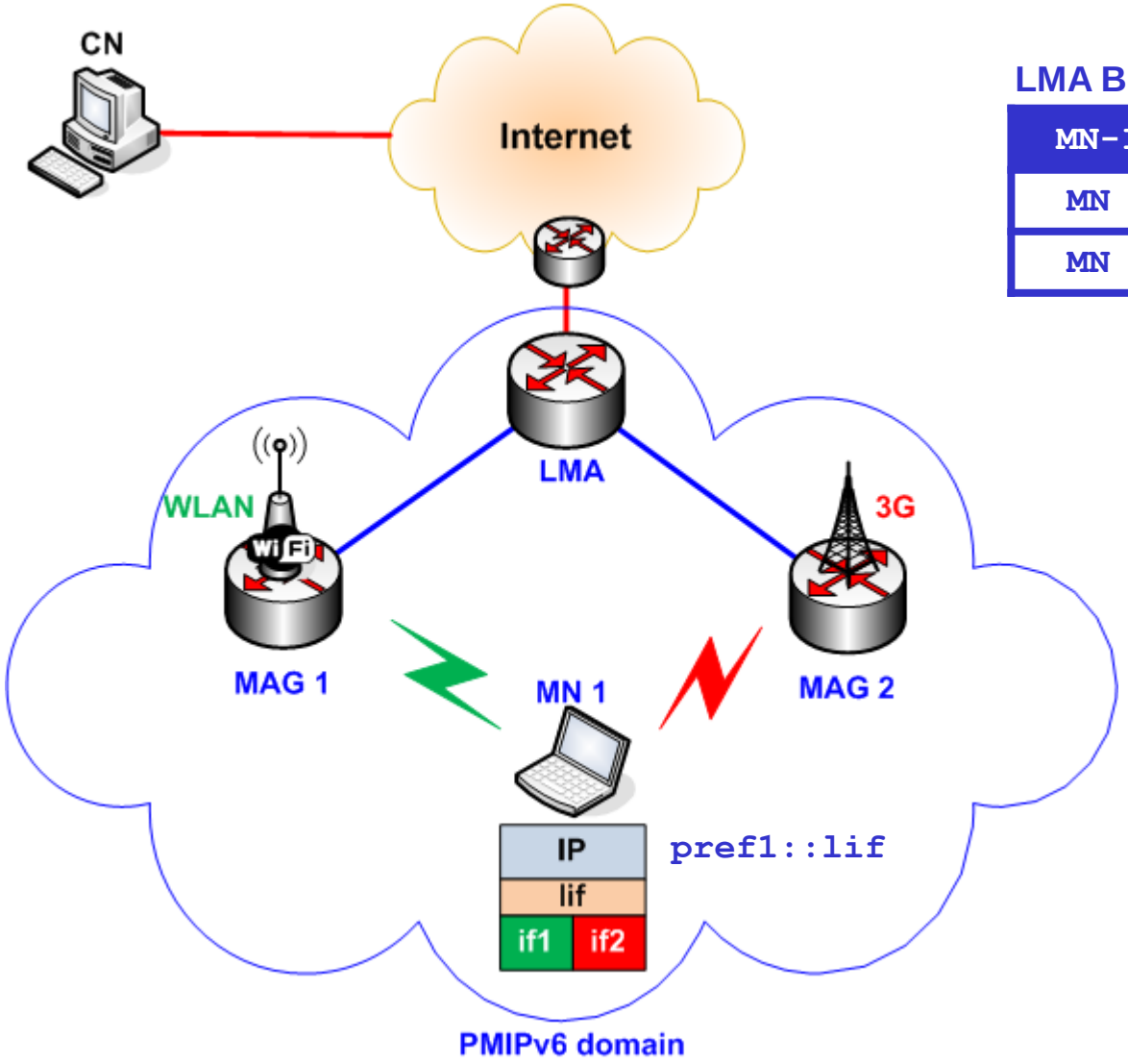
dest	next hop
pref1::/64	p2p-iface-with-MN1
::/0	LMA
pref2::/64	p2p-iface-with-MN1

MAG2 routing state

dest	next hop
pref2::/64	p2p-iface-with-MN1
::/0	LMA

Shared prefix across physical interfaces

Scenario



LMA Binding Cache

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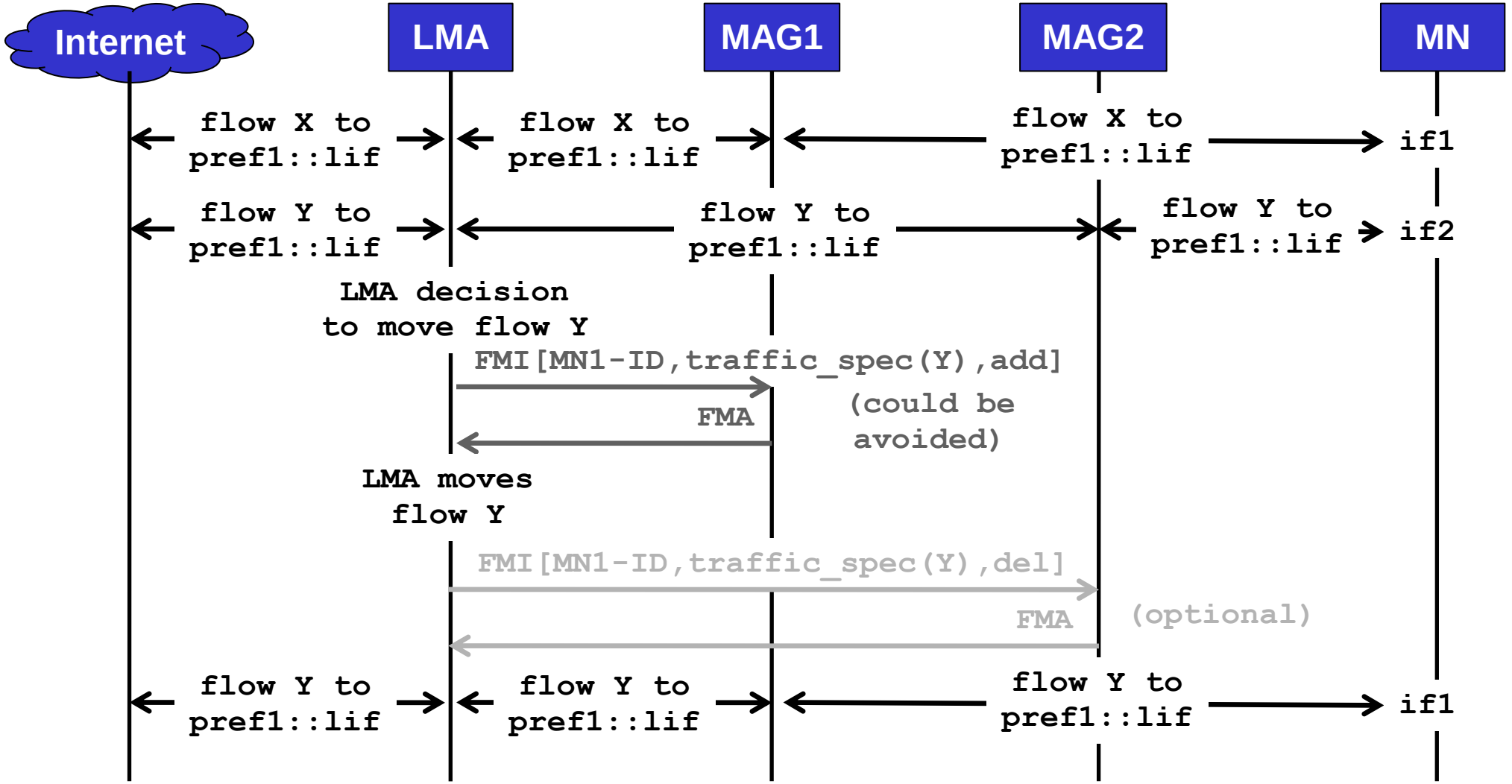
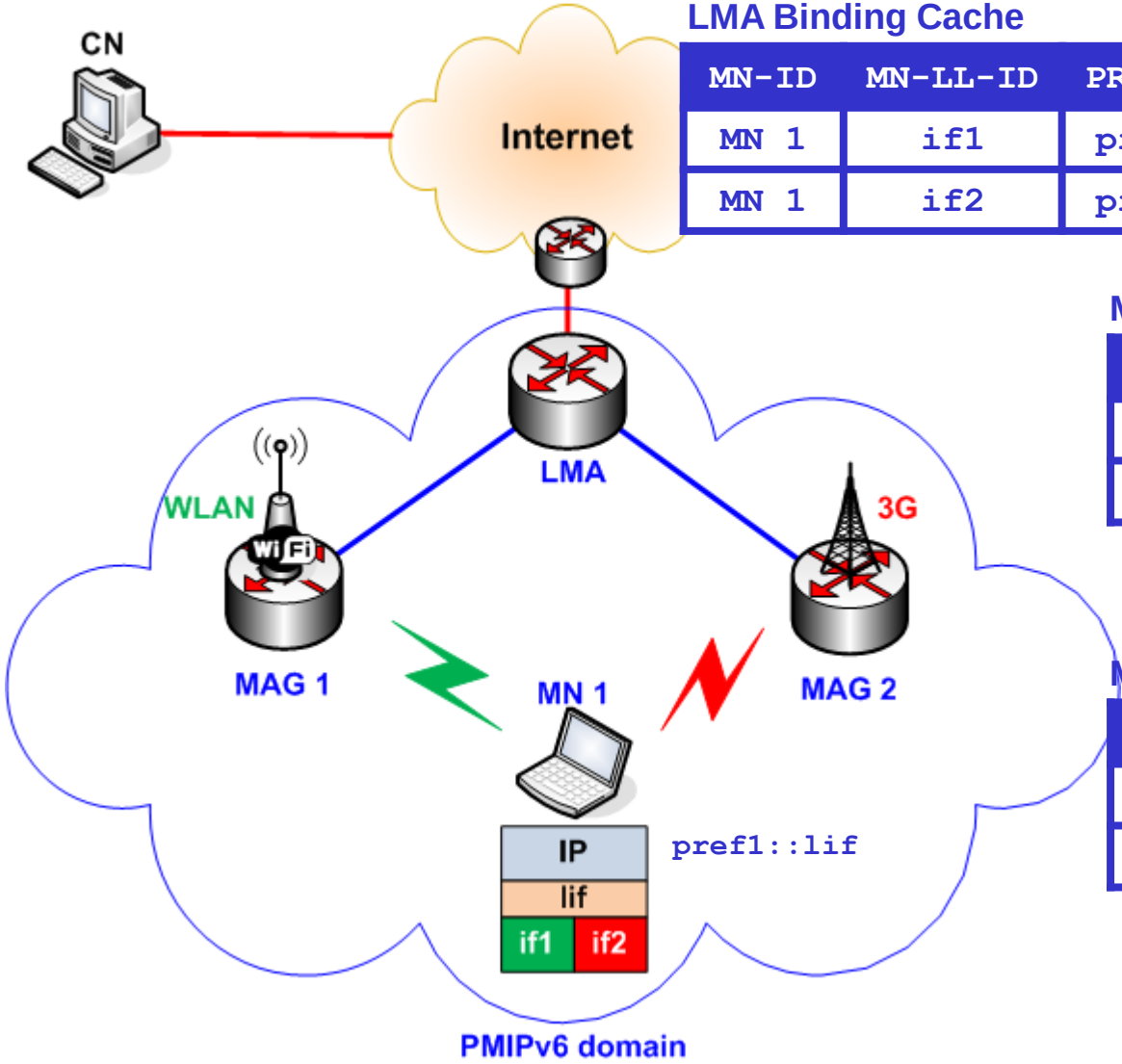
Shared prefix across physical interfaces

Signaling



Shared prefix across physical interfaces

Conceptual data structures



LMA Binding Cache

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

LMA flowmob state

MN-ID	flow	MAG
MN 1	flow X	MAG 1
MN 1	flow Y	MAG 1

MAG1 routing state

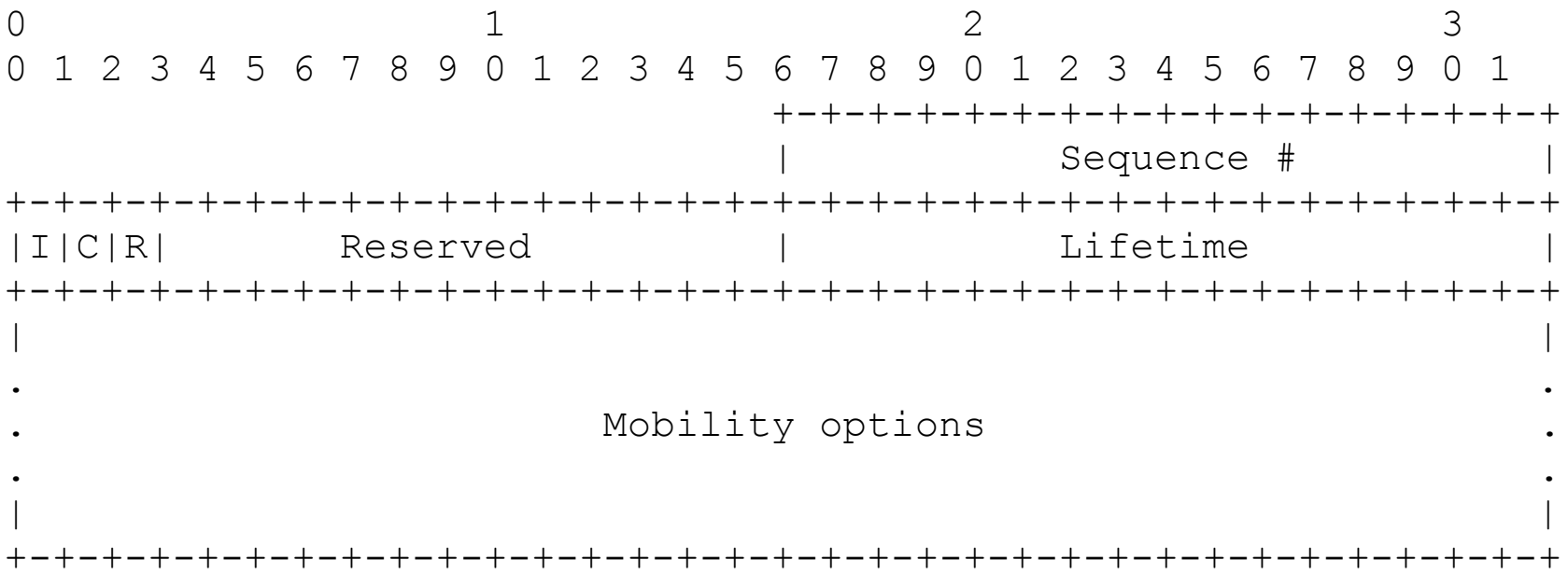
dest	next hop
pref1::/64	p2p-iface-with-MN1
::/0	LMA

MAG2 routing state

dest	next hop
pref1::/64	p2p-iface-with-MN1
::/0	LMA

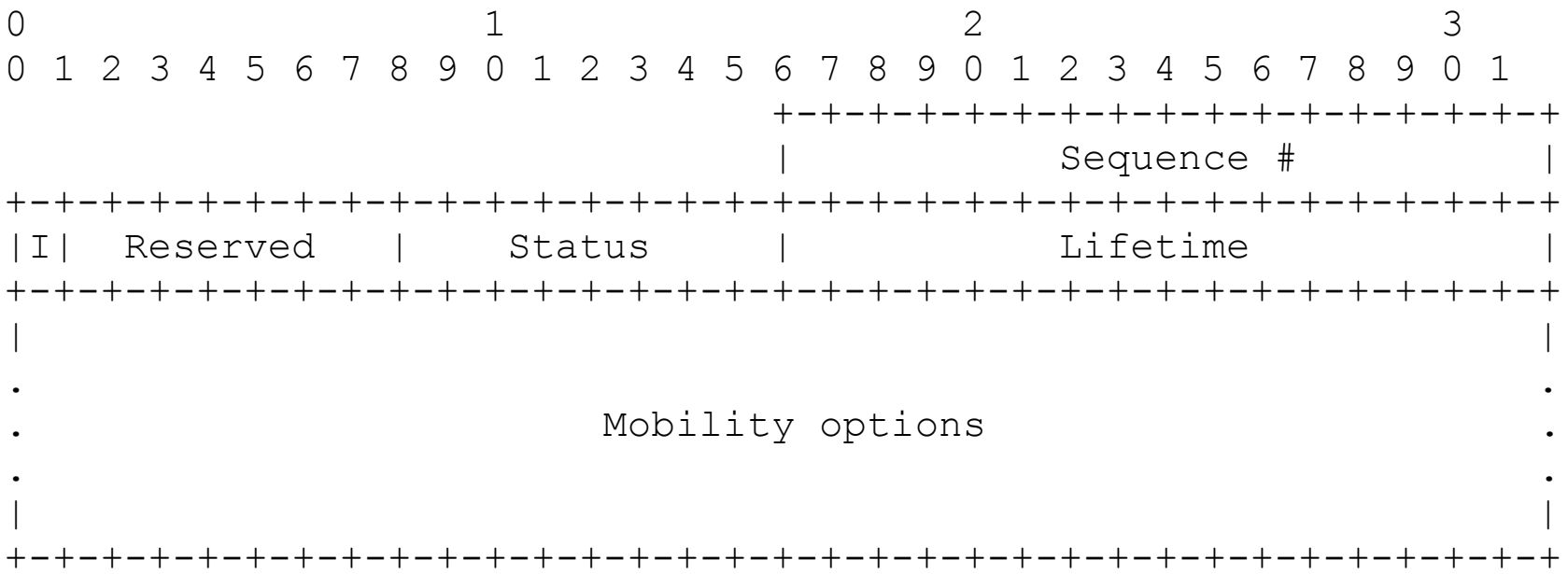
Message formats

Flow Mobility Initiate (FMI)



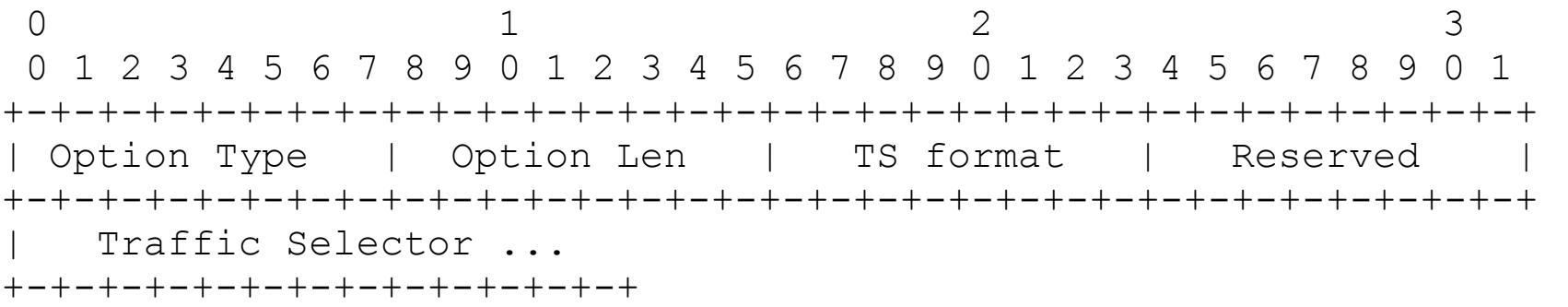
Message formats

Flow Mobility Acknowledge (FMA)



Message formats

Traffic Selector mobility option (TS)



Next steps

- Adopt as WG document?