MN Status Option for Proxy Mobile IPv6

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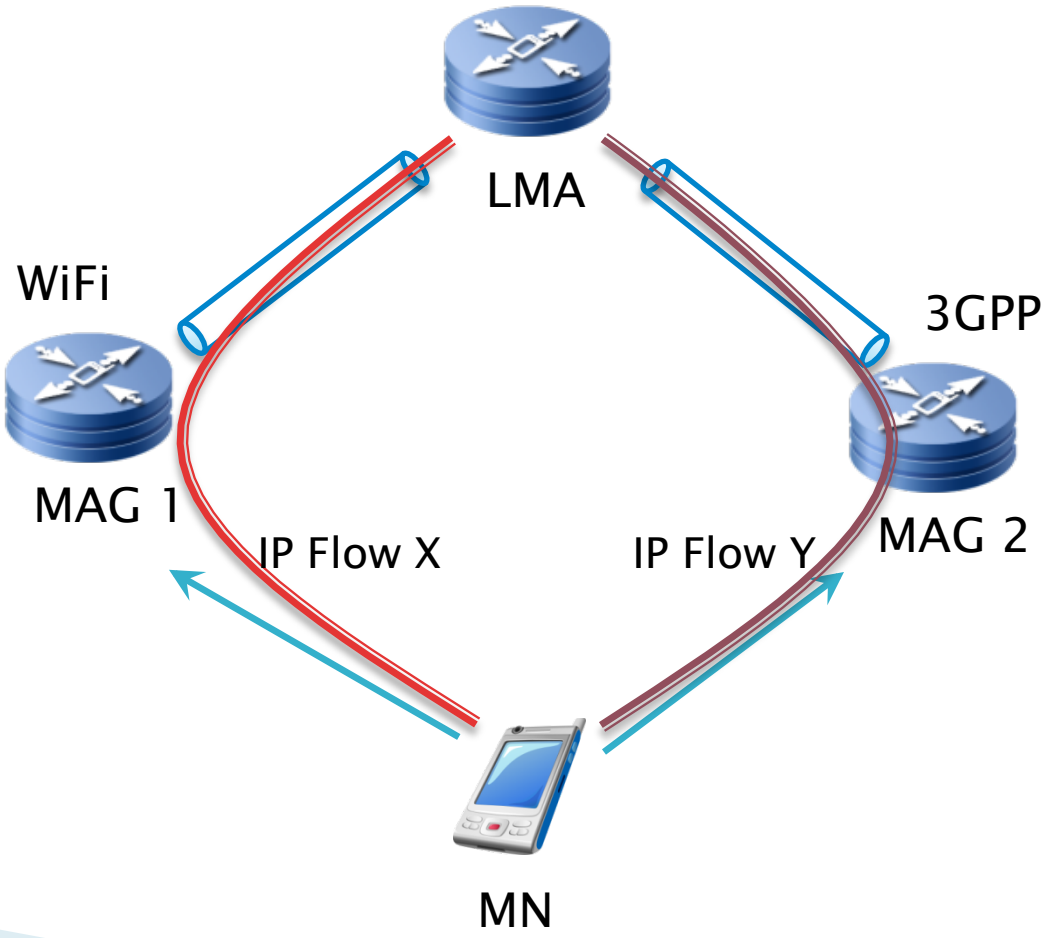
Background

- PMIPv6 deployments support communication using multiple access technologies simultaneously.
- The **PMIPv6 flow mobility** draft specifies extensions for the traffic/IP flow to be moved from one access type to another.
- The PMIPv6 flow mobility draft assumes a Mobile Node connectivity status of (1) connect or (2) disconnect. However some access technologies allow for a MN status of ***sleep or idle mode***.

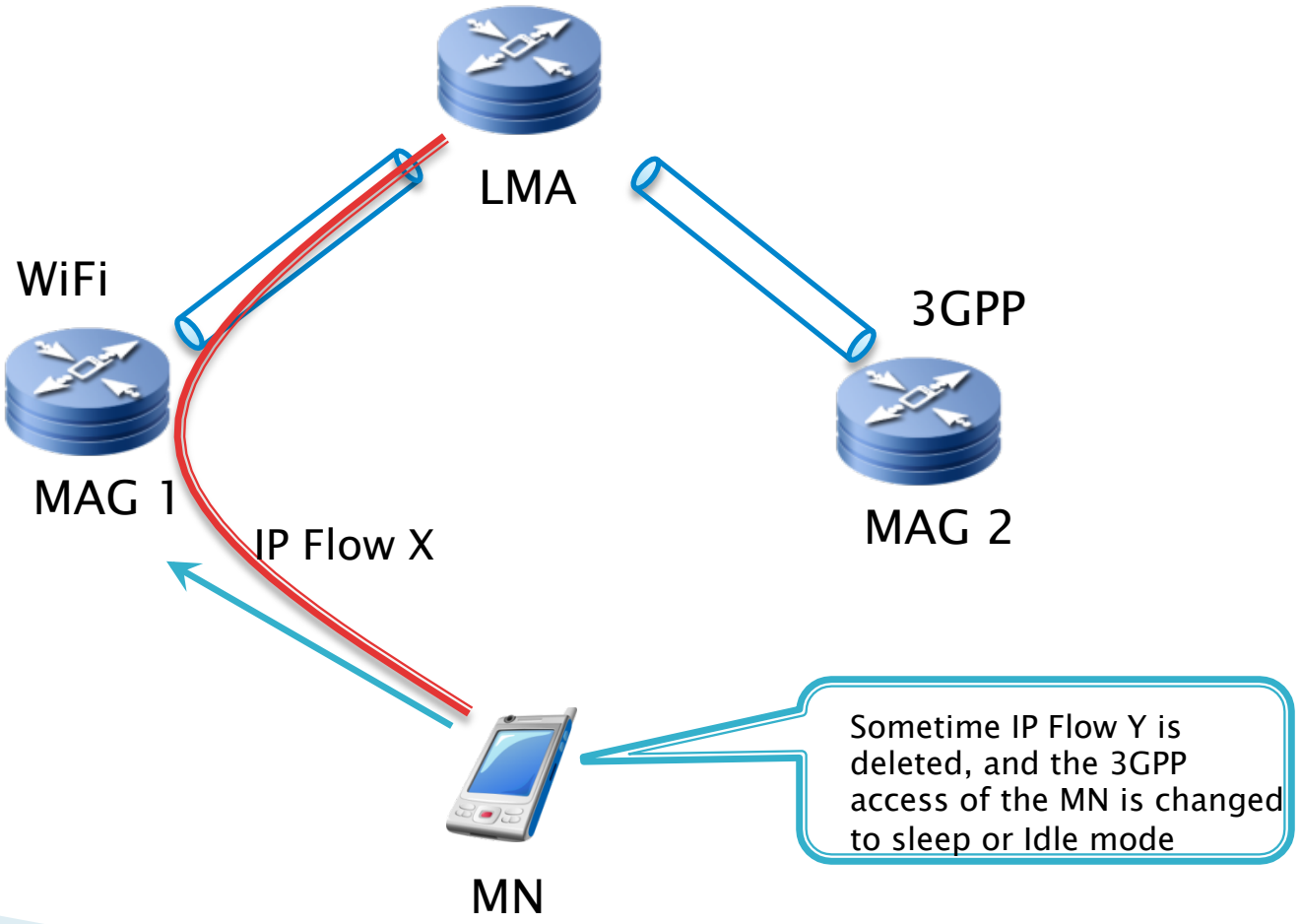
Identified Problem

- For flow mobility the LMA essentially decides the routing rules for the specific IP flow (s), however,
  - the connectivity status of a node in sleep (idle) mode for a specific is not carried to the LMA.
  - so that it is impossible to guarantee the flow mobility can be done successfully.

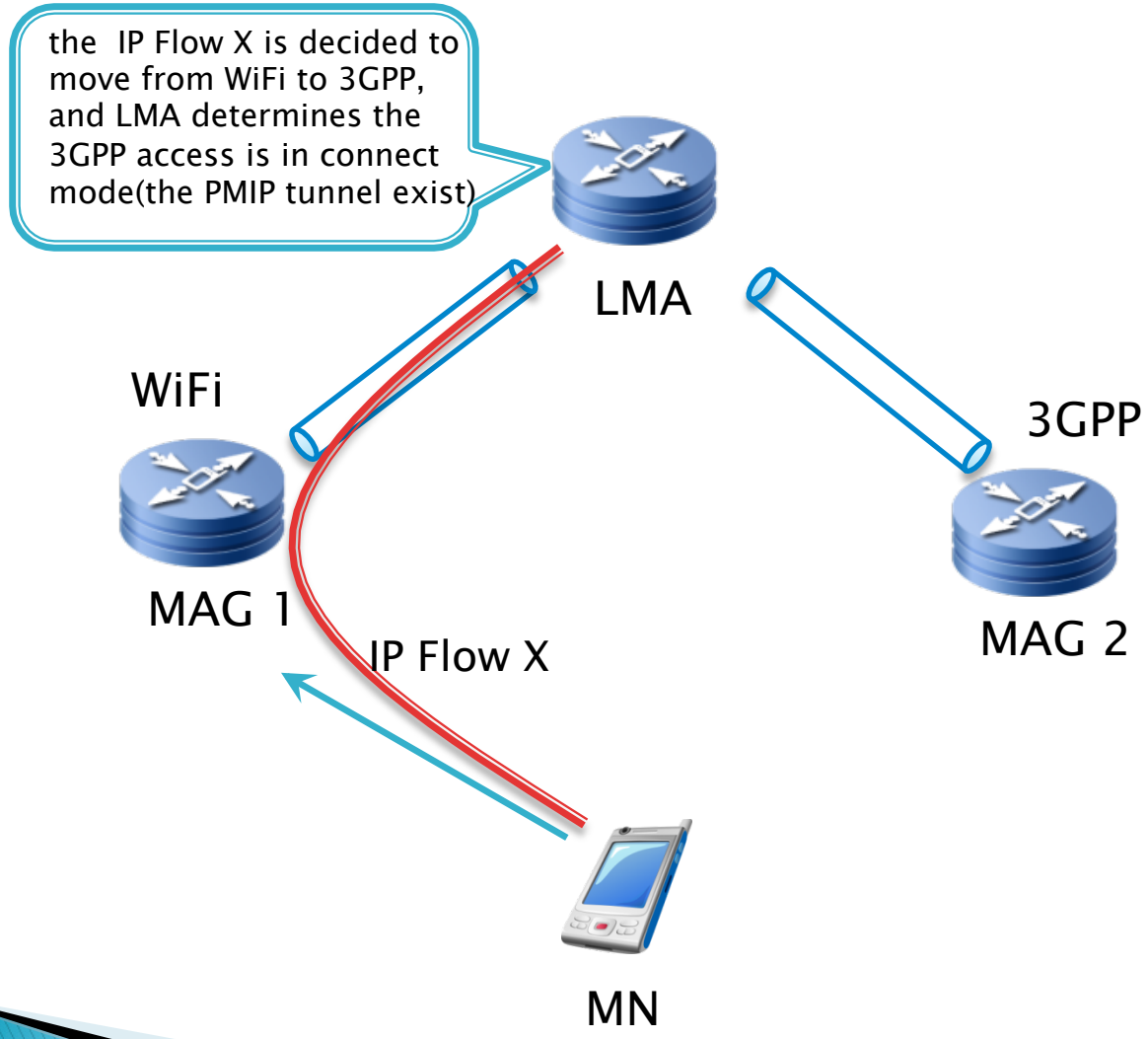
Problem Illustration



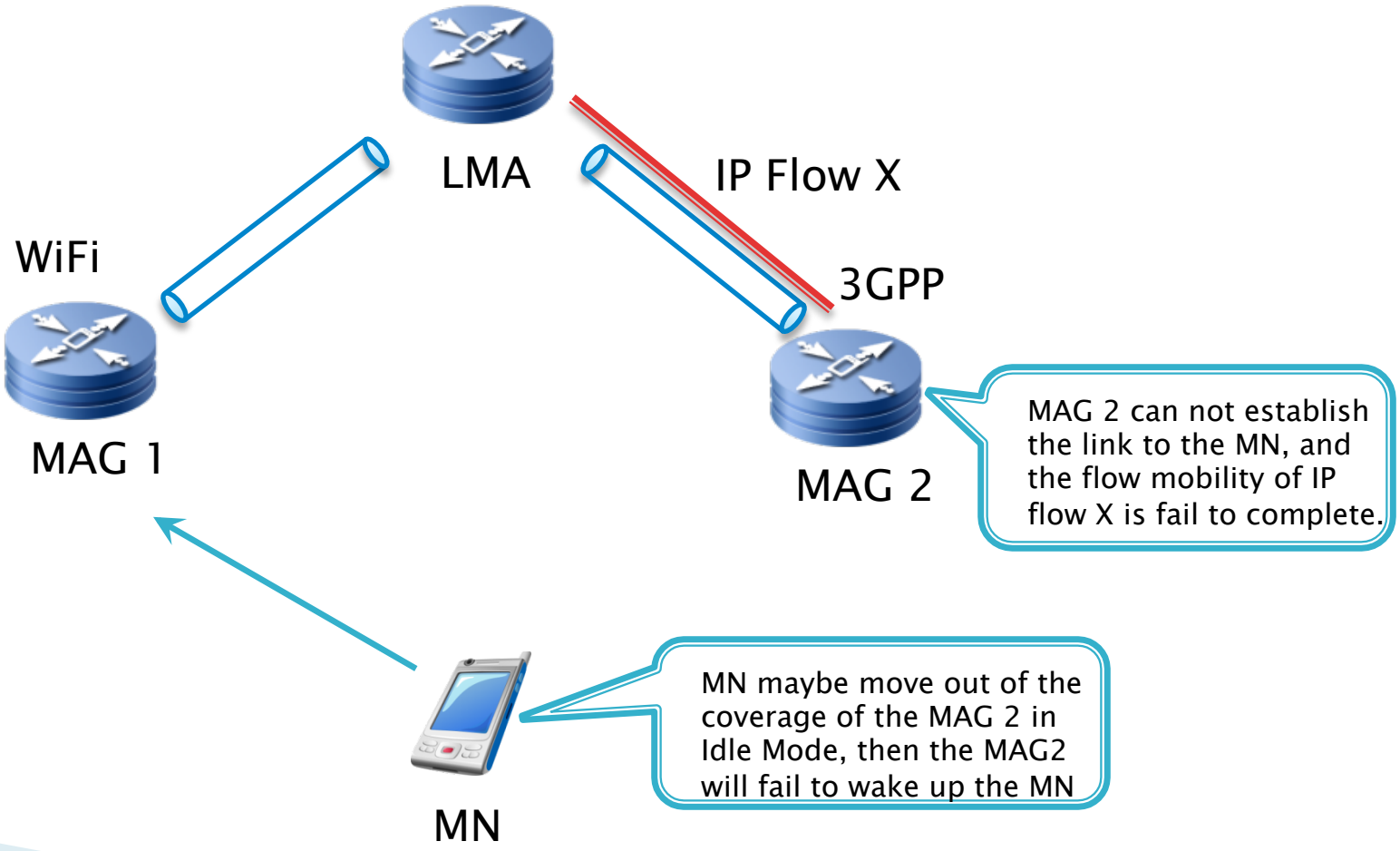
Problem Illustration



Problem Illustration



Problem Illustration



Initial idea for addressing issue

- A new option is defined for using it in messages (PBU/ PBA) exchanged between MAGand LMA.

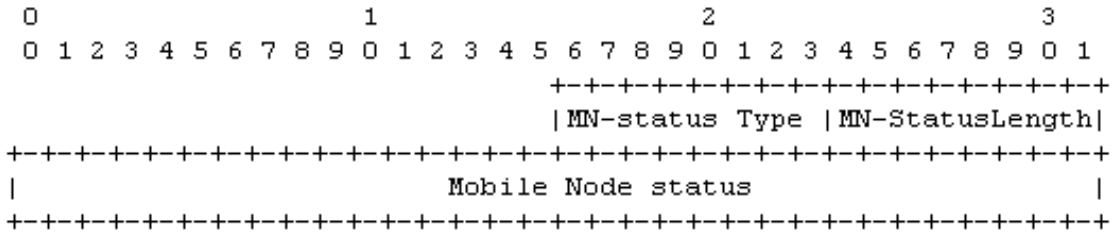


Figure 1: MN Status Option

- MN-status Length
  - 8-bit unsigned integer indicating the length in octets of the option,excluding the type and length fields.
- Mobile Node status
  - The status of the mobile node attached from a specific accessnetwork, such as WiFi,WiMAX and 3GPP. Currently the value of the MNstatus can be as follow:1,connect mode,2,disconnect mode, 3,idle/Power saving mode,4,reserved.

Next steps

- If the working group agrees that this is a problem and that the NETEXT resolve this issue.