

LMA Controlled MAG Session Parameters

(draft-gundavelli-dmm-lma-controlled-mag-params)

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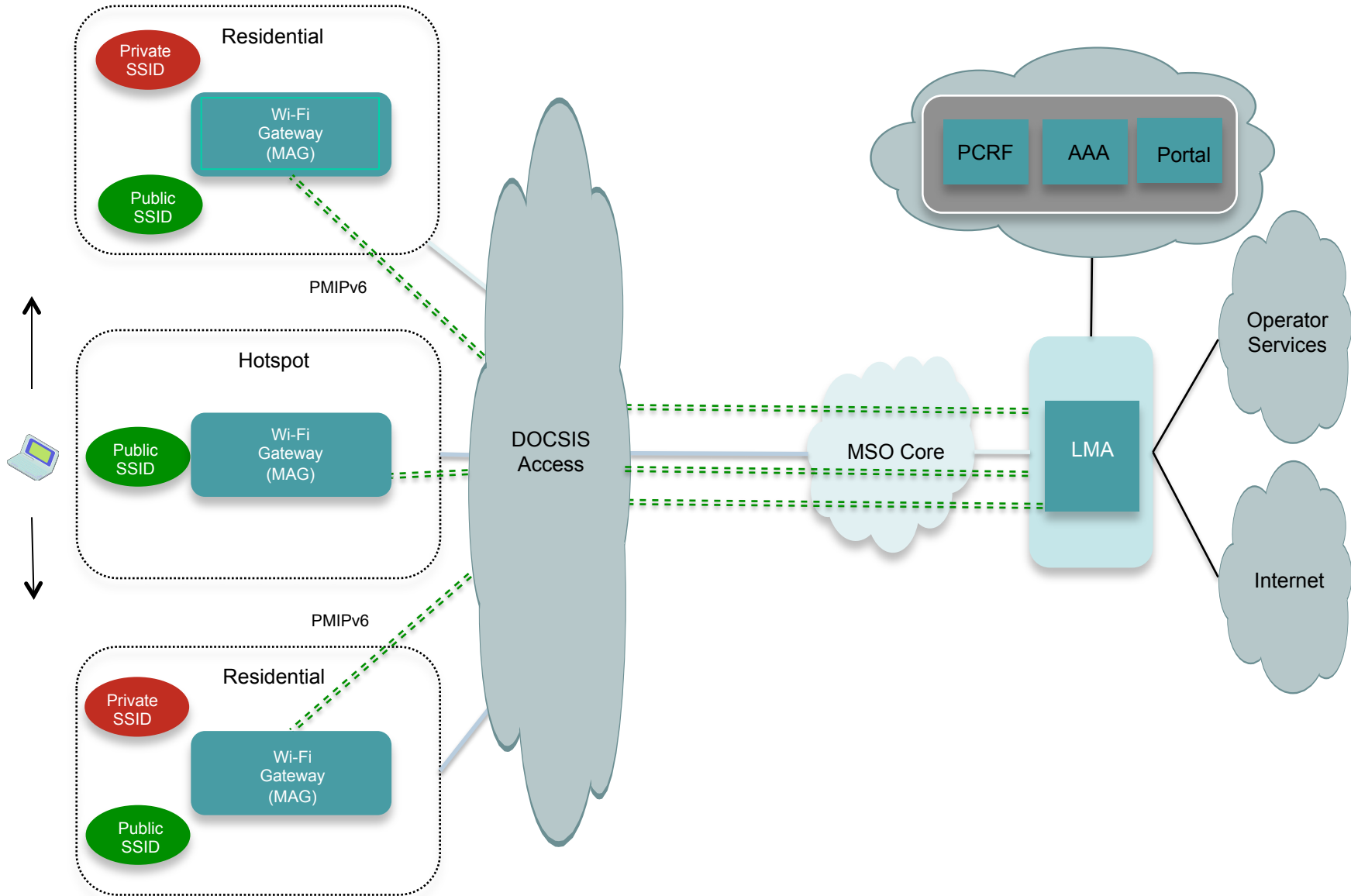
Motivation

- Service Providers are deploying Community Wi-Fi networks with potentially tens of thousands of MAGs spread across geographical locations. While it can be operationally challenging to manage such large number of MAGs, it can also be very difficult to ensure configuration consistency across all the MAGs if they are not centrally managed.
- Configuring aggressive values of parameters such as re-registration timeout and heartbeat interval can potentially create considerable signaling load on the LMA.

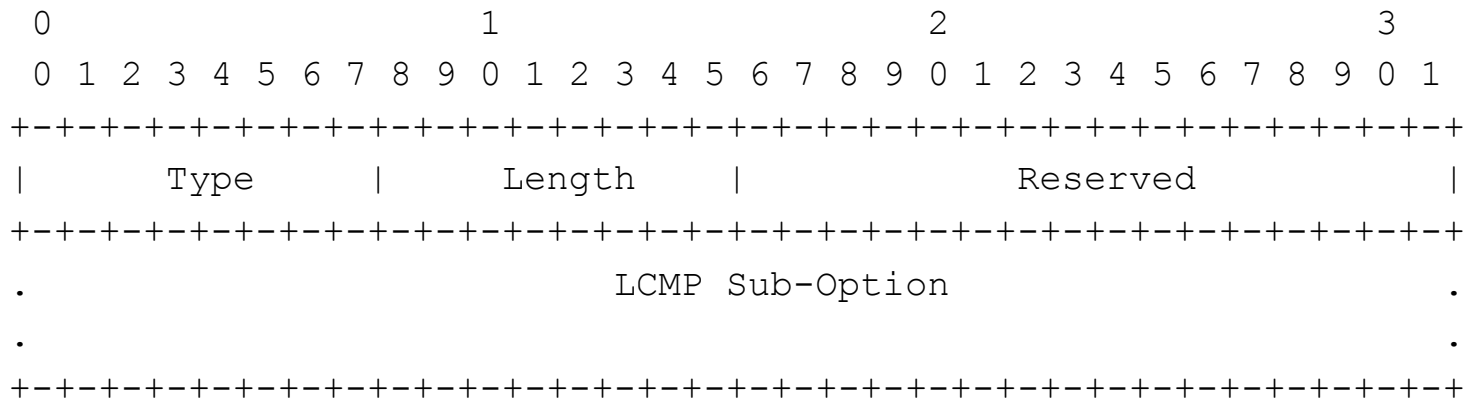
Motivation

- This document provides a new option to enable the LMA to control various parameters on the MAG. This option is included by the LMA in the PBA message.
- With this option, the configuration of these tunable parameters can be enforced from the LMA. With this approach Service Providers will have better control on the behavior of the MAGs with deterministic signaling load on the network.

Community Wi-Fi Deployments



LMA Controlled MAG Parameter Option



Type:

<IANA>

Length:

8-bit unsigned integer indicating the length in octets of the option, excluding the Type and Length fields.

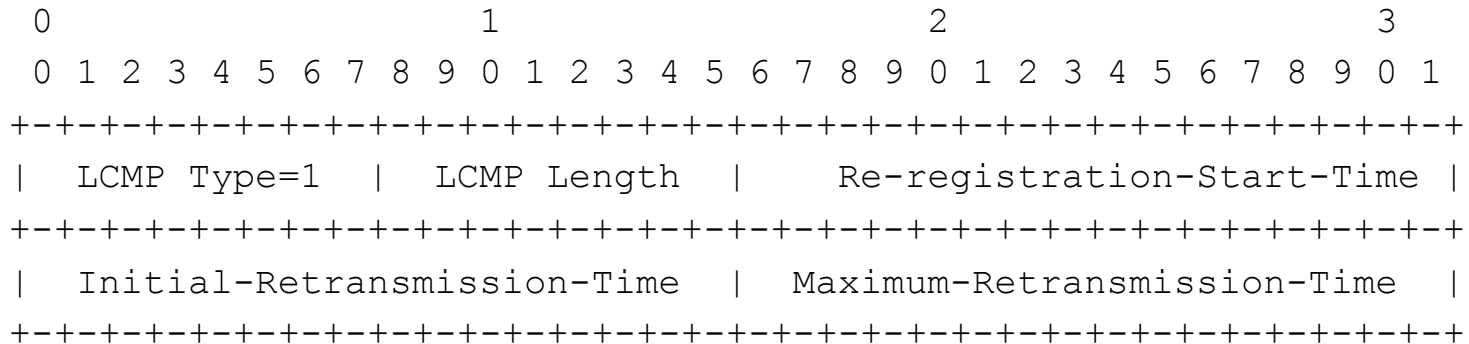
Reserved:

MUST be set to zero when sending and ignored when received.

LCMP Sub-Option:

One or more LCMP Sub-Options

Binding Re-registration Control Sub-Option



Re-registration-Start-Time:

16-bit unsigned integer indicating the number of time units before the expiry of the PMIPv6 binding lifetime when the registration refresh process needs to be activated. One time unit is 4 seconds.

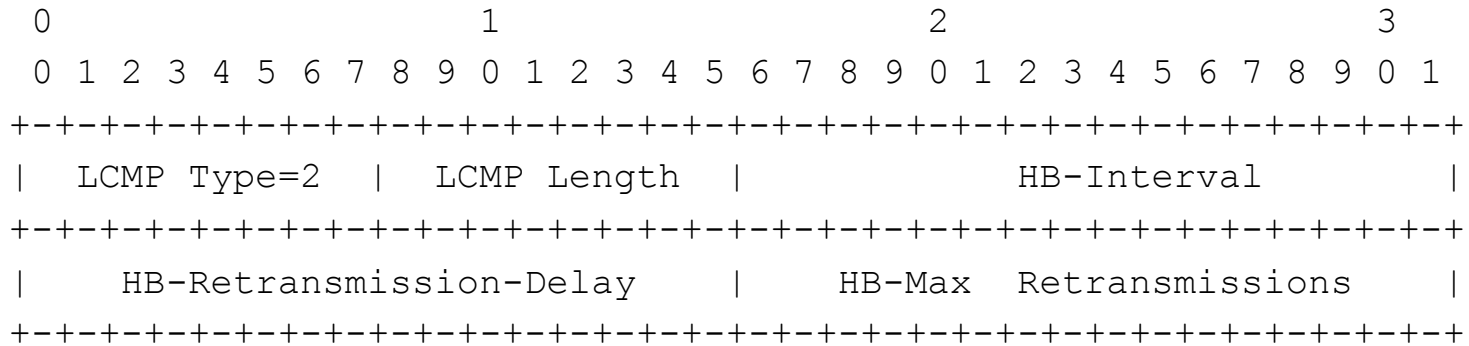
Initial-Retransmission-Time:

16-bit unsigned integer indicating minimum delay in seconds before the first PBU retransmission of the exponential back-off process.

Maximum-Retransmission-Time:

16-bit unsigned integer indicating maximum delay in seconds before the last PBU retransmission message of the exponential back-off process.

Heartbeat Control Sub-Option



HB-Retransmission-Delay:

16-bit unsigned integer indicating heartbeat interval, i.e. time delay in seconds after a successful heartbeat exchange (request followed by response) when the next heartbeat exchange can be triggered.

HB-Retransmission-Delay:

16-bit unsigned integer indicating minimum time delay in seconds before a heartbeat message is retransmitted. unsigned integer indicating the length in octets of the option, excluding the Type and Length fields.

HB-Max-Retransmissions:

MUST be set to zero when sending and ignored when received. 16-bit unsigned integer indicating maximum number of heartbeat

Conclusion

- Service Providers are deploying large scale Community Wi-Fi Services.
- This document identifies a specific issue that these deployments are facing and a solution for addressing this problem.
- Authors request the draft be adopted as the WG document.