

# Distributed Mobility Management (DMM) WG

## Multi-homing support for Residential Gateways (draft-seite-dmm-rg-multihoming)

IETF91, Honolulu

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# Brief status update

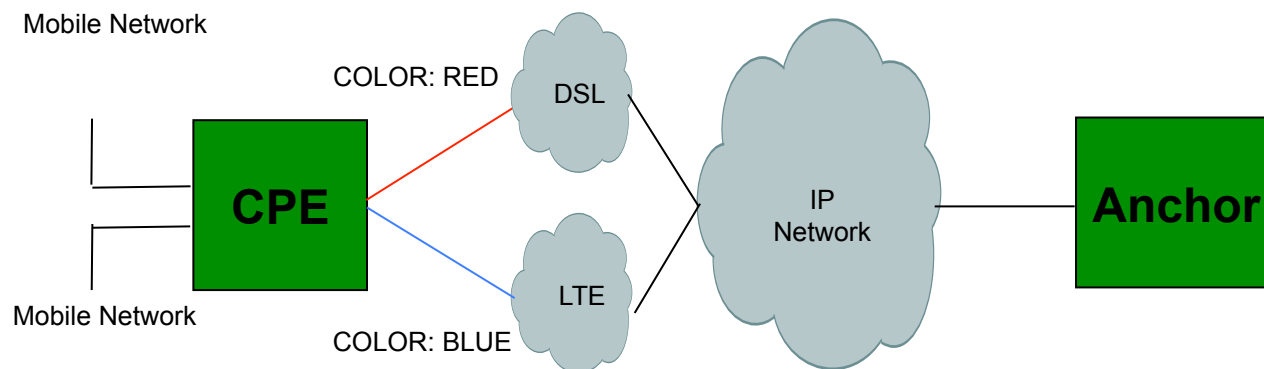
- ❑ Presented the requirements and use-cases in IETF90; Received Positive feedback in the meeting
- ❑ Published draft-seite-dmm-rg-multihoming-00.txt
- ❑ Plans to publish a revised version right after IETF91

# Hybrid Access Requirements

Requirement	Description
Interface Selection	Single Access Attach – Attach to the "best" available access network Multi Access Attach – Attach to all available access networks
Multiple Care-of Address	Ability for the CPE to register multiple care-of address with the anchor
Delegated Prefix Support	Ability to request IPv4 and/or IPv6 network prefixes for the ingress network from the anchor
Multipath Support	Ability to establish multiple tunnel paths to the anchor to realize multipath overlay topology from the mobile network to the anchor; So, to realize a bigger data pipe for the traffic associated with the mobile network prefixes
Dual-stack Support	Support for IPv4/IPv6 user-plane Support for IPv6/IPv6 access/transport
Policy-based Routing	Ability to negotiate a traffic flow policy on application/flow basis; Most preferred access to least preferred access on application basis and ability switch the flows based on the path availability
NAT Traversal Support	The IP address provided on the cellular link can be a private address.

# Multipath with Policy-based Routing

- The CPE is attached to multiple access networks (Ex: LTE, DSL ..)
- Each of the roaming interfaces are marked with a specific Color. Ex: DSL is RED, LTE is BLUE



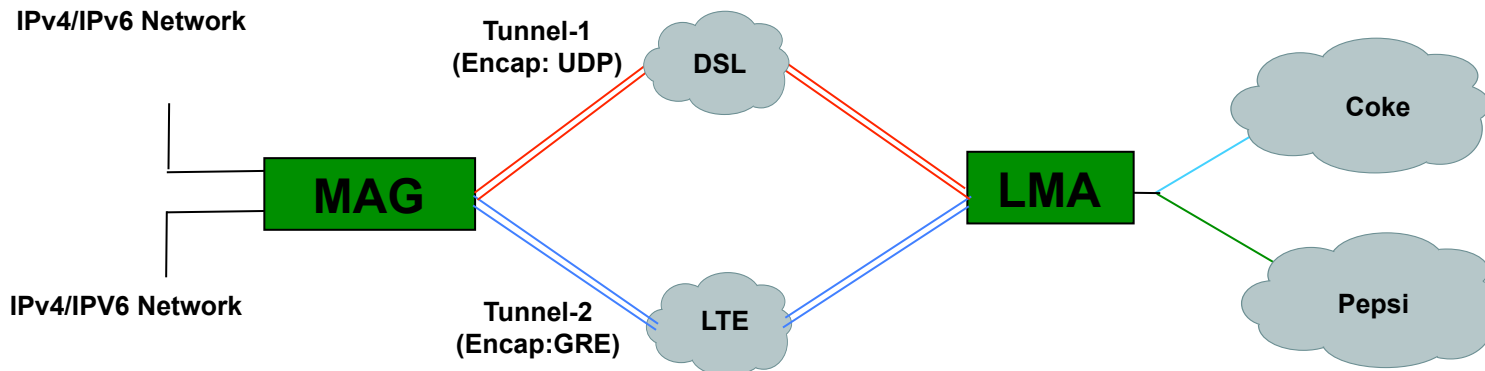
# IP Flow Policy

- IP Flow policy configuration on the LMA and MAG. This is an identical mirrored configuration on LMA and MAG

Application	Preferred Access Type	Second Preference	Third Preference
HTTP	BLUE	RED	<DROP>
IPSec	RED	BLUE	<DROP>
SSH	<DROP>	<DROP>	-
SIP / RTP	BLUE	<DROP>	<DROP>

# Multipath with Policy Routing

- Multiple egress cellular links are enabled. Application-based path selection.



Application	WLAN AND LTE Available	WLAN NOT Available	LTE NOT Available
HTTP	Tunnel-2	Tunnel-2	Tunnel-1
IPsec	Tunnel-1	Tunnel-2	Tunnel-1
SSH	--	--	--
SIP/RTP	Tunnel-2	Tunnel-2	--

# Next Steps

- Request for adoption as a WG item