



# Fast handovers for PMIPv6

<draft-yokota-mipshop-pfmipv6-03>

Hidetoshi Yokota

Kuntal Chowdhury

Rajeev Koodli

Basavaraj Patil

Frank Xia

KDDI Lab

Starent Networks

Starent Networks

Nokia

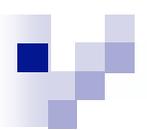
Huawei

IETF #72 Dublin



# Background

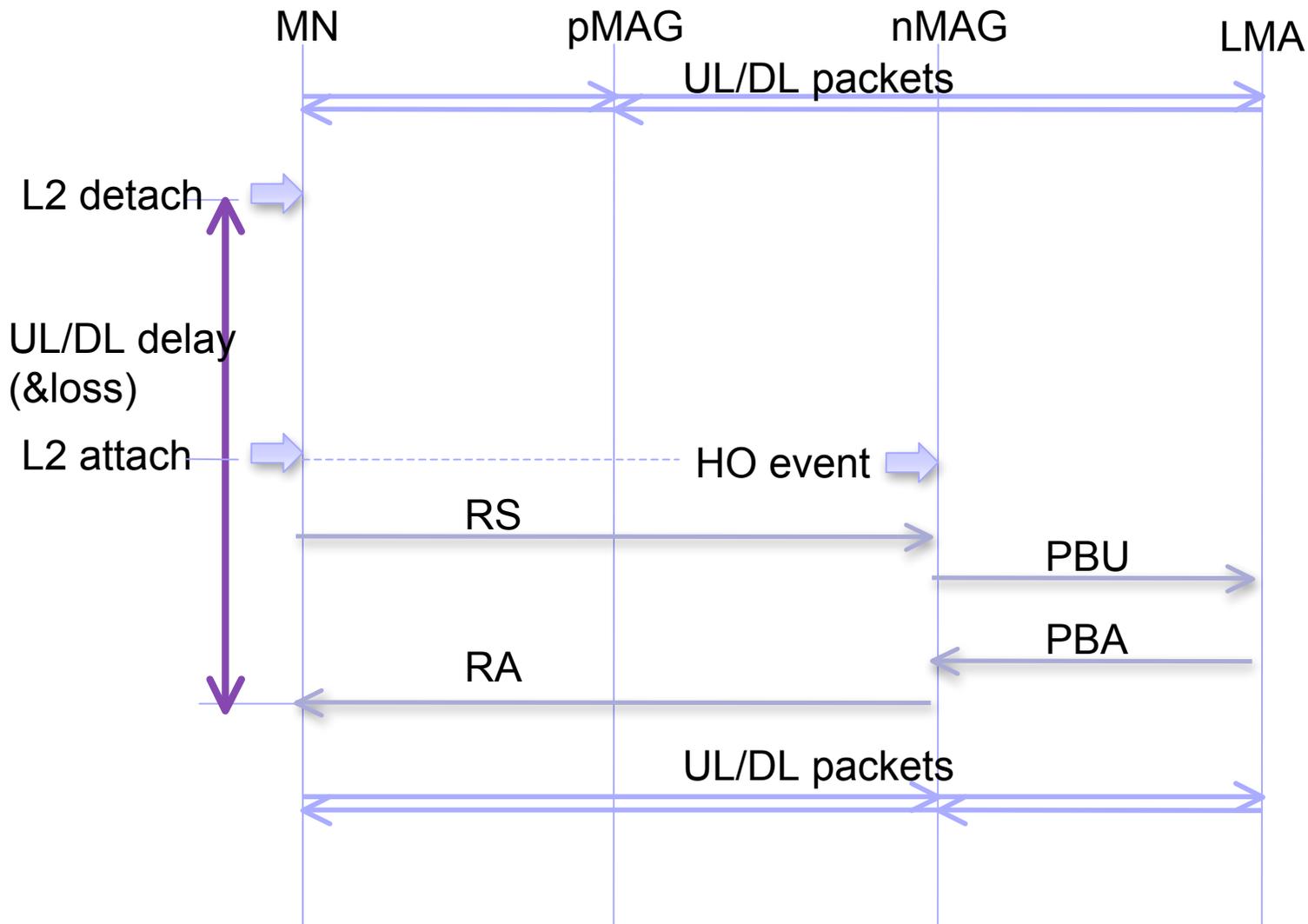
- RFC 5268 specifies Fast Handovers for (Client) Mobile IPv6
- This document, first presented at IETF 69, specifies Fast Handovers when Proxy Mobile IPv6 is used
- Provides performance (uplink and downlink packet loss, delay and context transfer) during inter-gateway handovers

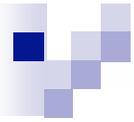


# Design principles

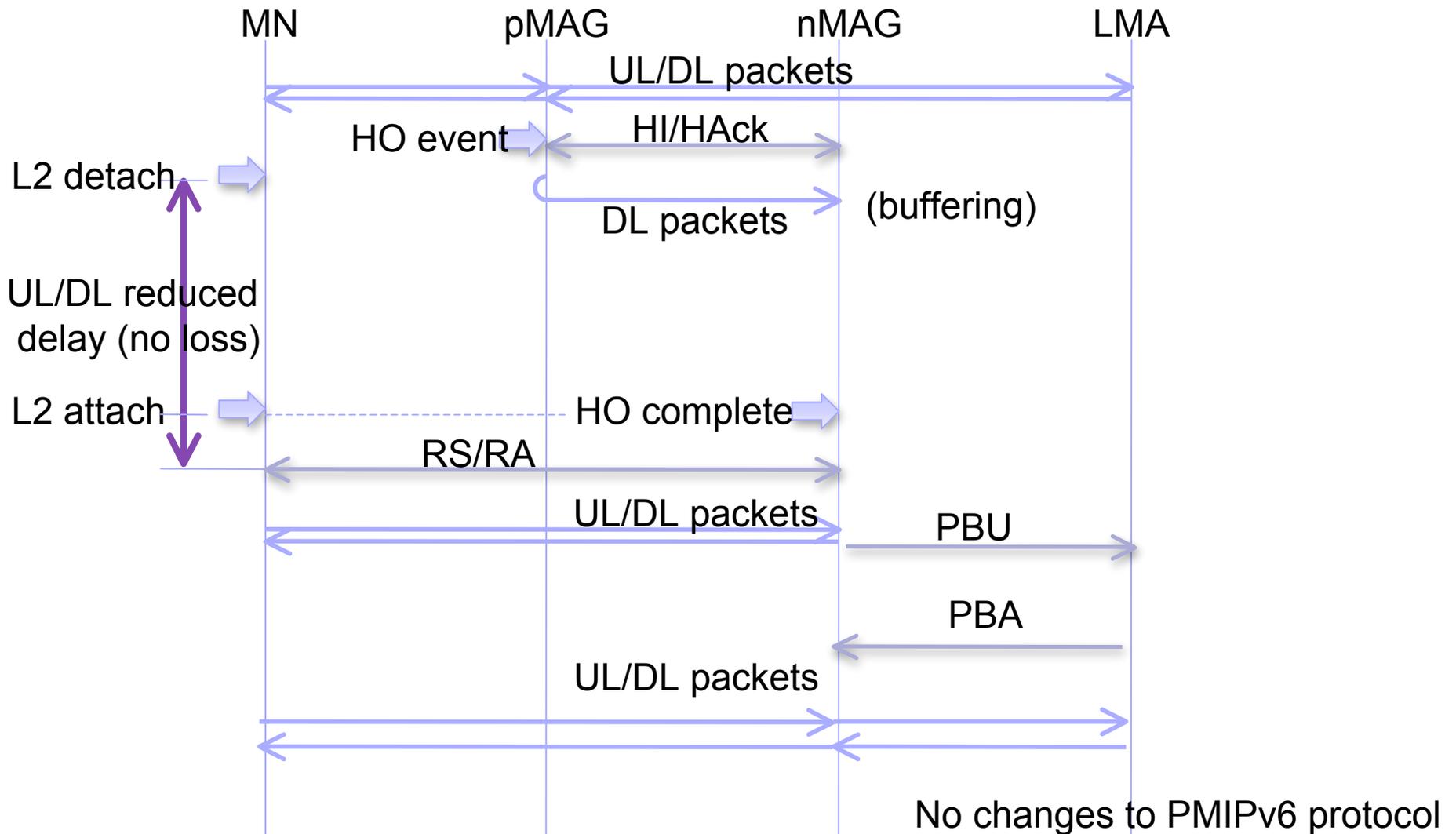
- Reuse FMIPv6 (RFC5268)
- Extend FMIPv6 to work without MN's involvement
  - MN-initiated fast handover messages, explicit handover indication are not available
  - Rely on Access Network procedures (as in PMIPv6)
- Define Network Layer containers (such as MN-ID, LMA-A, HoA,..) for context transfer
- Allow deployments to define access-specific containers

# PMIPv6 basic operation

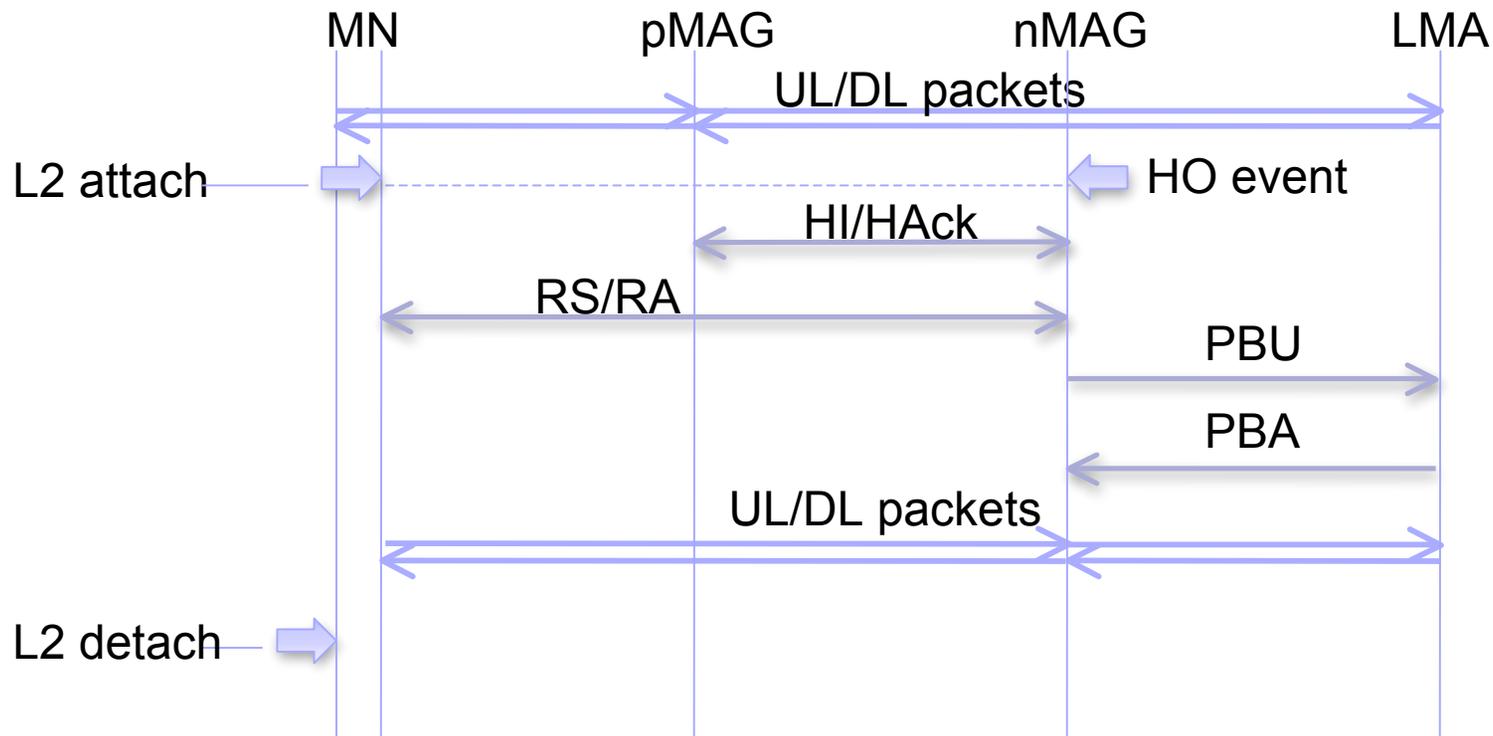




# PFMIPv6 operation (Intra-tech HO)



# PFMIPv6 operation (Inter-tech HO)



No changes to PMIPv6 protocol



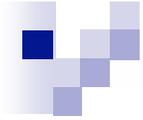
# Changes from -02

- Mobility Header HI/HAck messages
  - For deployments where ICMP is not preferred
- IPv4 HI/HAck messages
  - For MAGs that support only IPv4



# Usage

- PFMIPv6 provides fast handover and context transfer during gateway handovers with no IP mobility support in MN
- Example: The (HRPD Serving) Gateway handovers in 3GPP2 is based (normatively) on the PFMIPv6 document
  - (See specification *X.P0057 “EUTRAN - eHRPD Interworking”*)
- On 3GPP2 dependency list, priority high



# Way forward

- Adopt and progress the document in the WG

