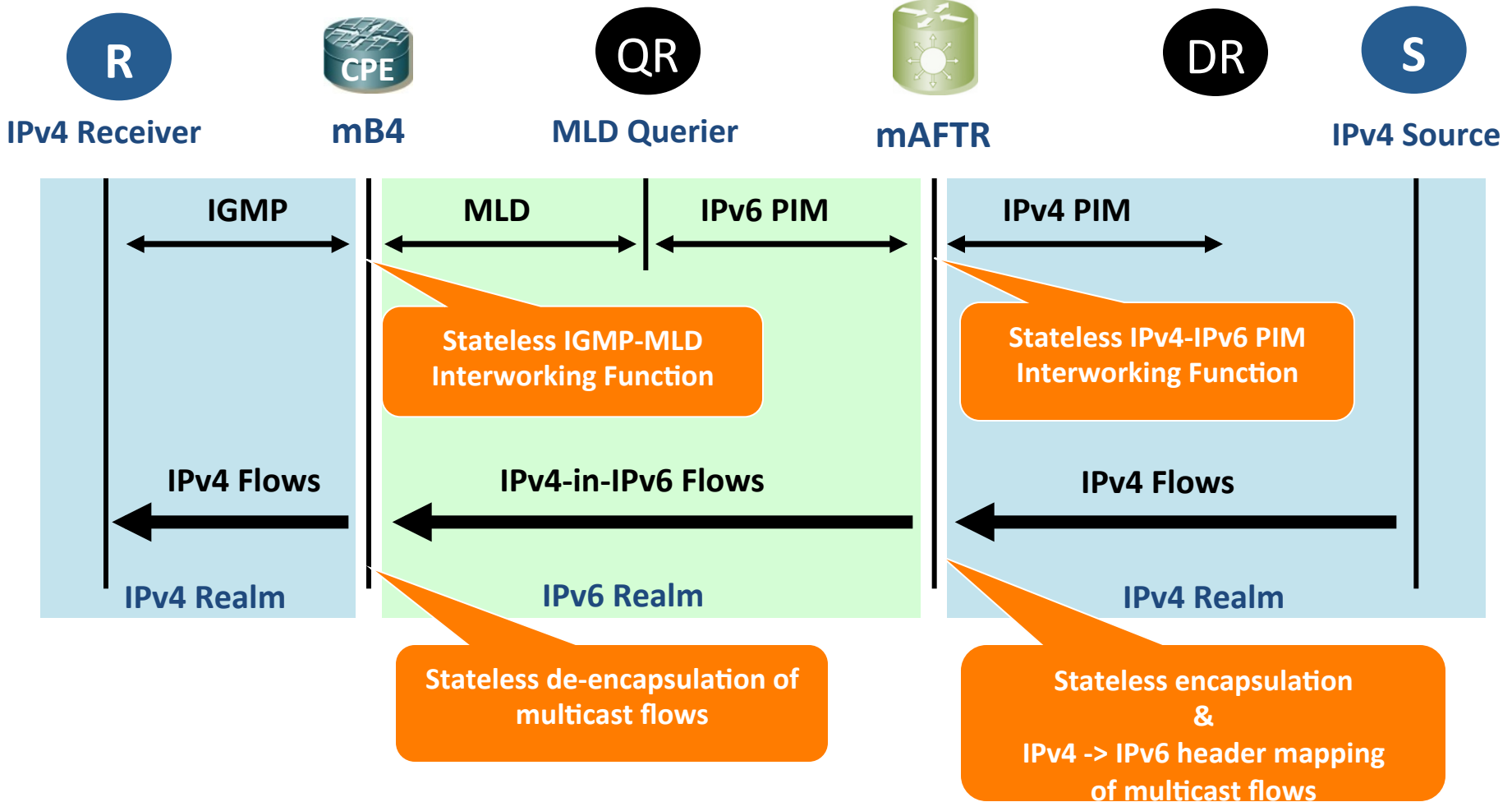# Multicast Extensions to DS-Lite Technique in Broadband Deployments

draft-qin-softwire-dslite-multicast-04

Xiaohong Deng

Context

– Deliver multicast service from IPv4 source to IPv4 reciever over IPv6 network by encapsulation

IPv4 Receiver — mB4 — MLD Querier — mAFTR — IPv4 Source

IGMP | MLD | IPv6 PIM | IPv4 PIM

Stateless IGMP-MLD Interworking Function

Stateless IPv4-IPv6 PIM Interworking Function

IPv4 Flows | IPv4-in-IPv6 Flows | IPv4 Flows

IPv4 Realm | IPv6 Realm | IPv4 Realm

Stateless de-encapsulation of multicast flows

Stateless encapsulation & IPv4 -> IPv6 header mapping of multicast flows

Overall procedures with involved interworking functions:
Need to provision the mB4 with mPREFIX64 and uPREFIX64
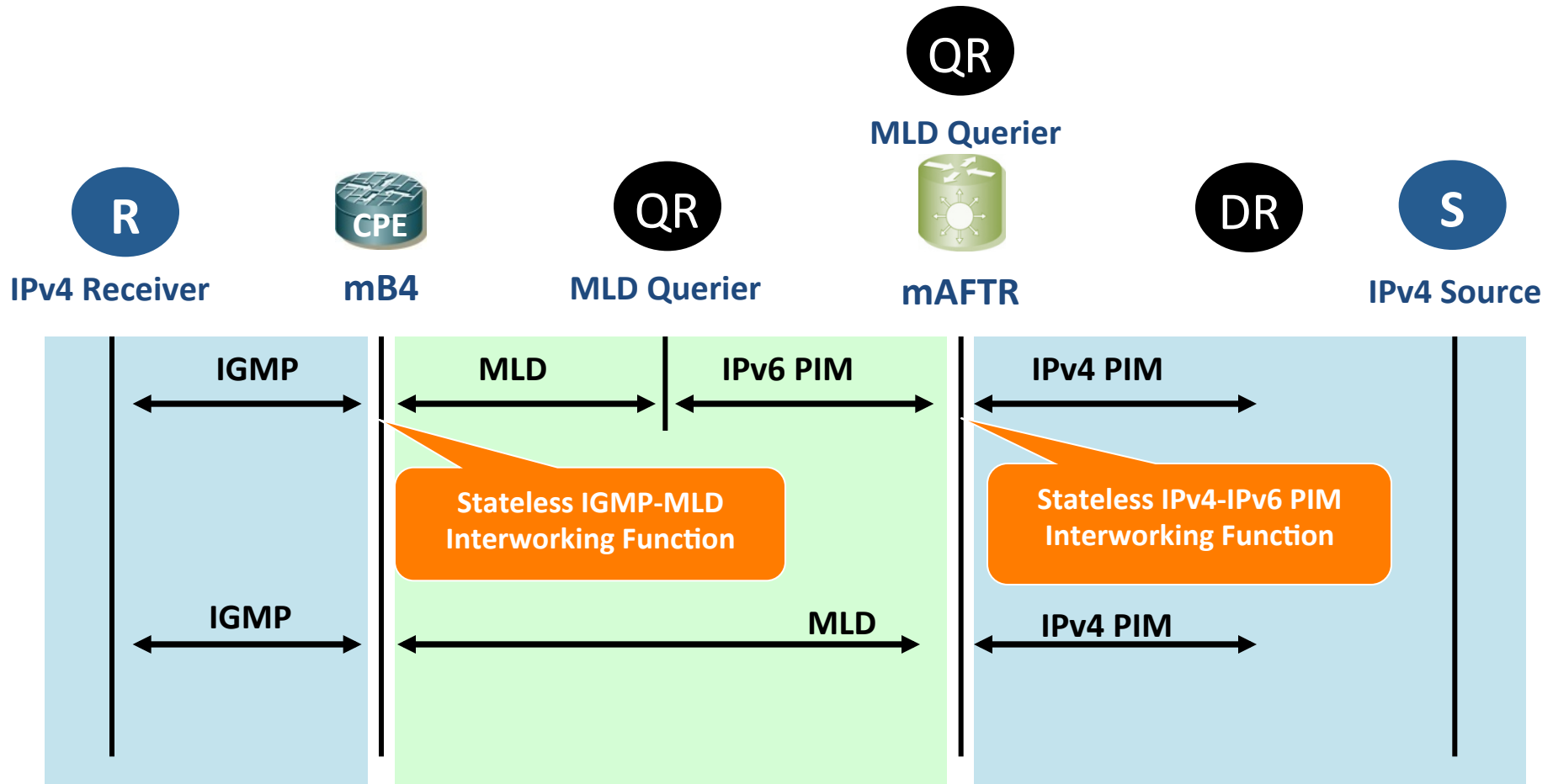
Addressing

- Address Building

  - Use [I-D.boucadair-behave-64-multicast-address-format] to build multicast IPv4-embedded IPv6 addresses

  - Use [RFC6052] to build unicast IPv4-embedded IPv6 addresses representing IPv4 sources in the IPv6 realm

- All address translation in interworking functions are stateless

Operation Consideration

- The data packets received by the reciever are identical to the packets sent by the source regardless the mechanism

- RP Locatition for ASM

- Preserve lay 2 operations (IGMP snooping/ proxy)

- Location of mAFTR

Comments & Questions

- *Questions?*

- *Anybody interested to participate?*
  - *Join the discussion in softwires WG/Mailing list*