

Multicast Extensions to DS-Lite Technique in Broadband Deployments

draft-ietf-softwire-dslite-multicast-01

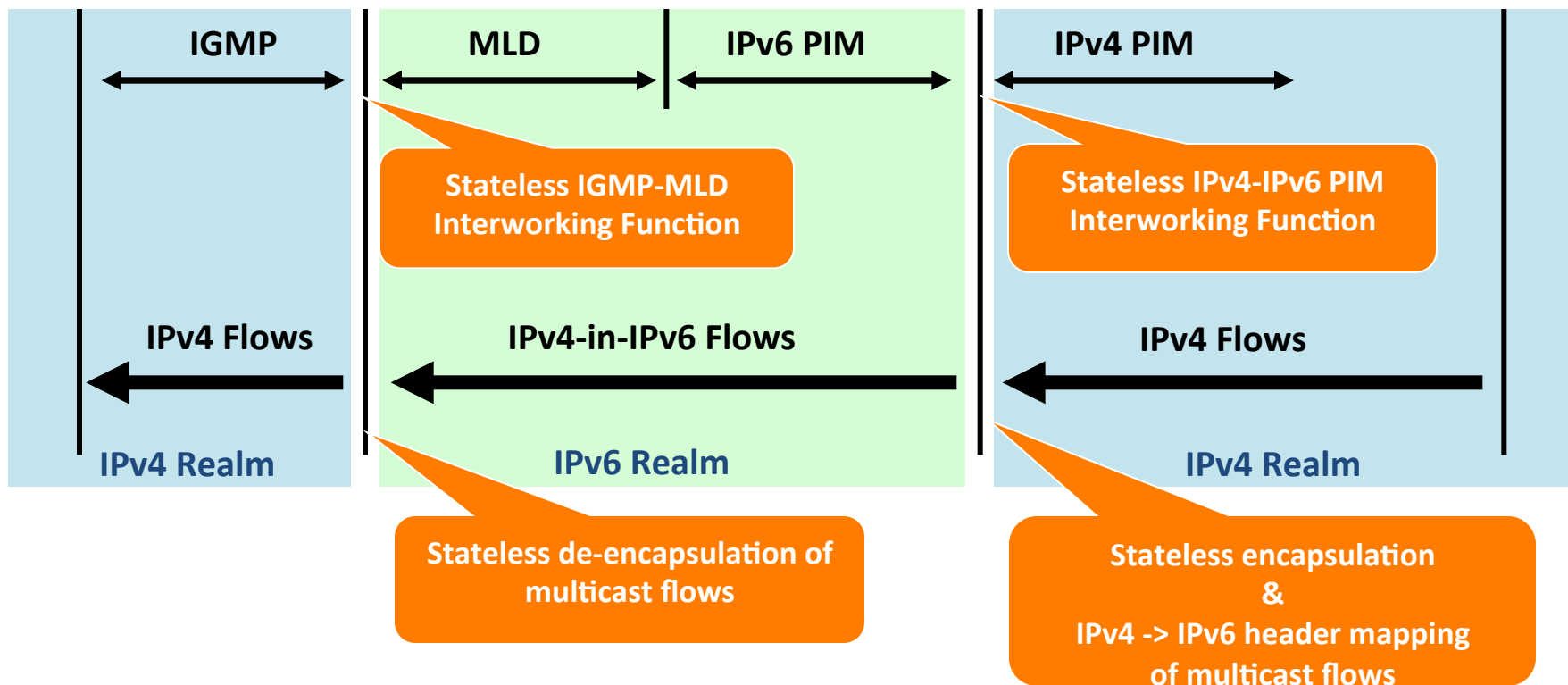
Wang, Q., Qin, J., Boucadair, M., Jacquenet, C., and Y. Lee

Scope & Use case

- Scope
 - An IPv4 receiver accesses IPv4 multicast contents over an IPv6-only multicast-enabled network.
- Use Case
 - Deliver multicast-based service offerings to DS-Lite serviced customers in ASM and SSM modes

Foundations

- Address Mapping
 - 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
- The underneath network delivers encapsulated packets **in standard multicast fashion**
 - Bandwidth optimization is ensured
- All involved interworking functions are **stateless**
- Two fundamental elements: **mB4, mAFTR**

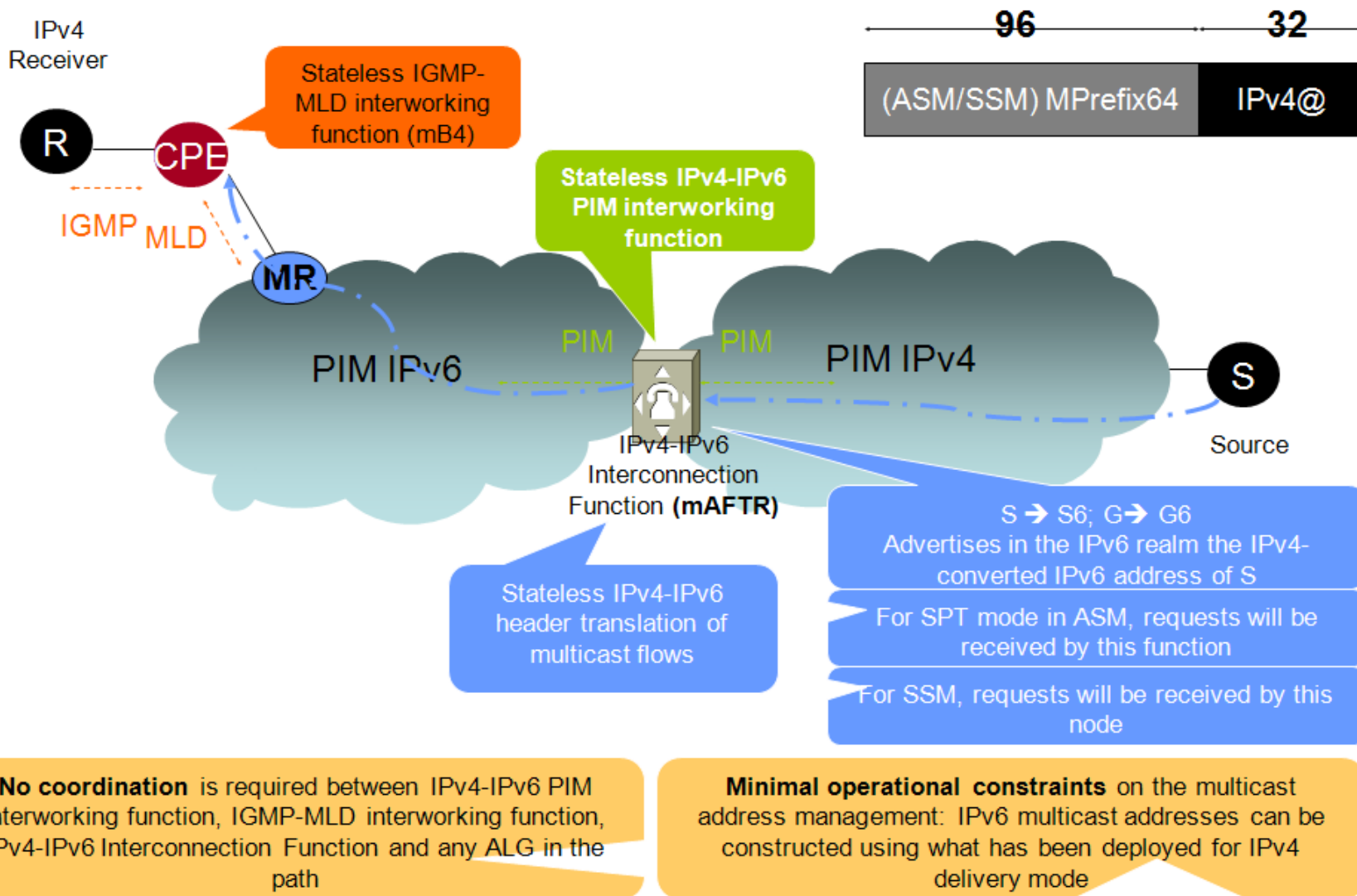


Overall procedures with involved interworking functions:
 Need to provision the mB4 with mPREFIX64 and uPREFIX64

Routing Considerations

- The mAFTR interconnects the IPv4 multicast distribution tree (MDT) with the corresponding IPv6 MDT.
- The mAFTR **MUST** use the uPrefix64 to build the IPv6 source addresses of the multicast group address derived from mPrefix64.
 - In other words, the mAFTR **MUST** be the multicast source derived from mPrefix64.
- The mAFTR **MUST** advertise the route of uPrefix64 to the IPv6 IGP.

Demonstration for POC



Next Step

- Please check the demo for POC
- Comments are welcome