

Enhancements to Signal-Free LISP Multicast

draft-vda-lisp-underlay-multicast-trees-00

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Problem Statement

- RFC 8378 defines signal-free mechanisms for an ingress replication-based underlay for overlay multicast.
 - Replication becomes cumbersome for large deployments
 - The multicast capabilities of the core network are unutilized
- Hence a mechanism to take advantage of the multicast capabilities of the core network can increase the scale of the overlay multicast.

Scope

- Keep the overlay signal-free semantics [RFC8378] intact
- Add mechanisms for a multicast LISP overlay to run over a:
 - mixed underlay with unicast and/or multicast capabilities
 - multicast-only underlay
- A mixed RLE-set example:

(S-EID,G-EID)	RLE [(S-RLOC1, G-RLOC _a), (S-RLOC1, G-RLOC _b), (S-RLOC1, U-RLOC _c), (S-RLOC2, U-RLOC _d)]
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- Not in scope :
 - BIER or MPLS or Layer-2 underlays.
 - Mechanisms to compute the underlay multicast group (G-RLOC)

Procedures defined in the draft

- Receiver Site procedures
- Consolidation of replication list at mapping server
- Source site procedures

Reference model

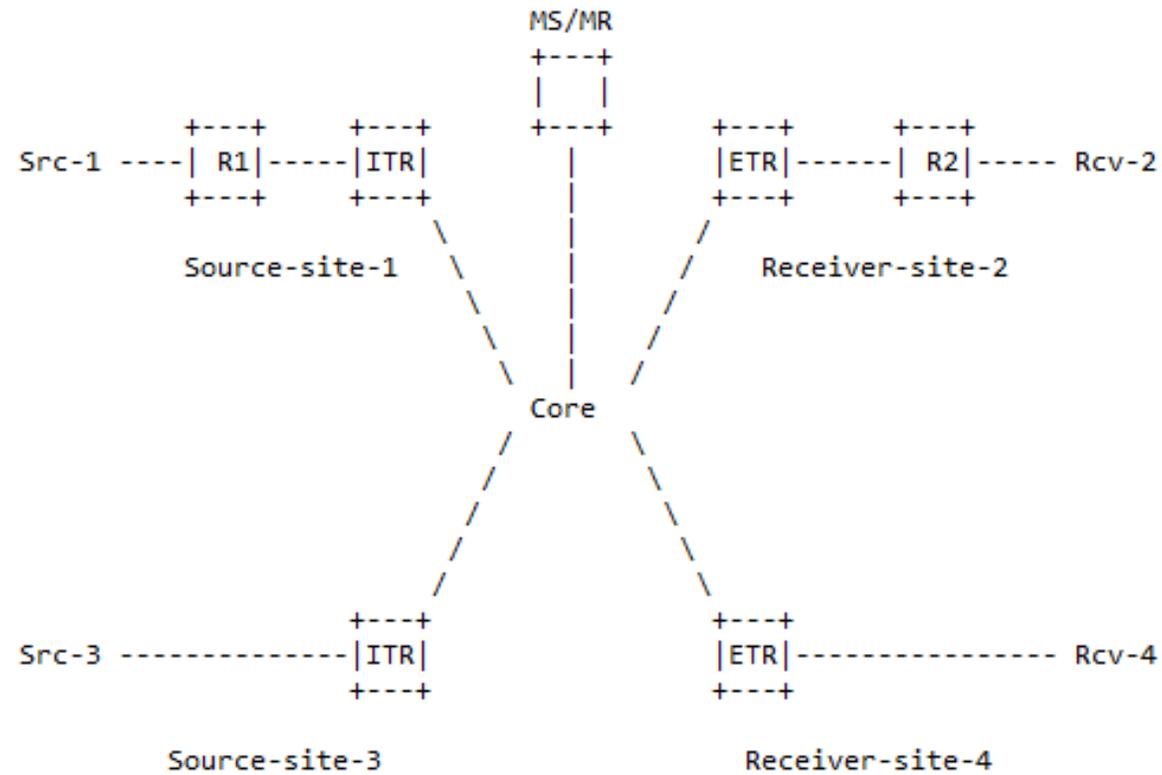


Figure 1: LISP Multicast Generic Reference Model