

# Enhancements to Signal-Free LISP Multicast

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

IETF-116 Yokohoma, Mar 2023

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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 <sub>a</sub> ), (S-RLOC1, G-RLOC <sub>b</sub> ), (S-RLOC1, U-RLOC <sub>c</sub> ), (S-RLOC2, U-RLOC <sub>d</sub> )]
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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

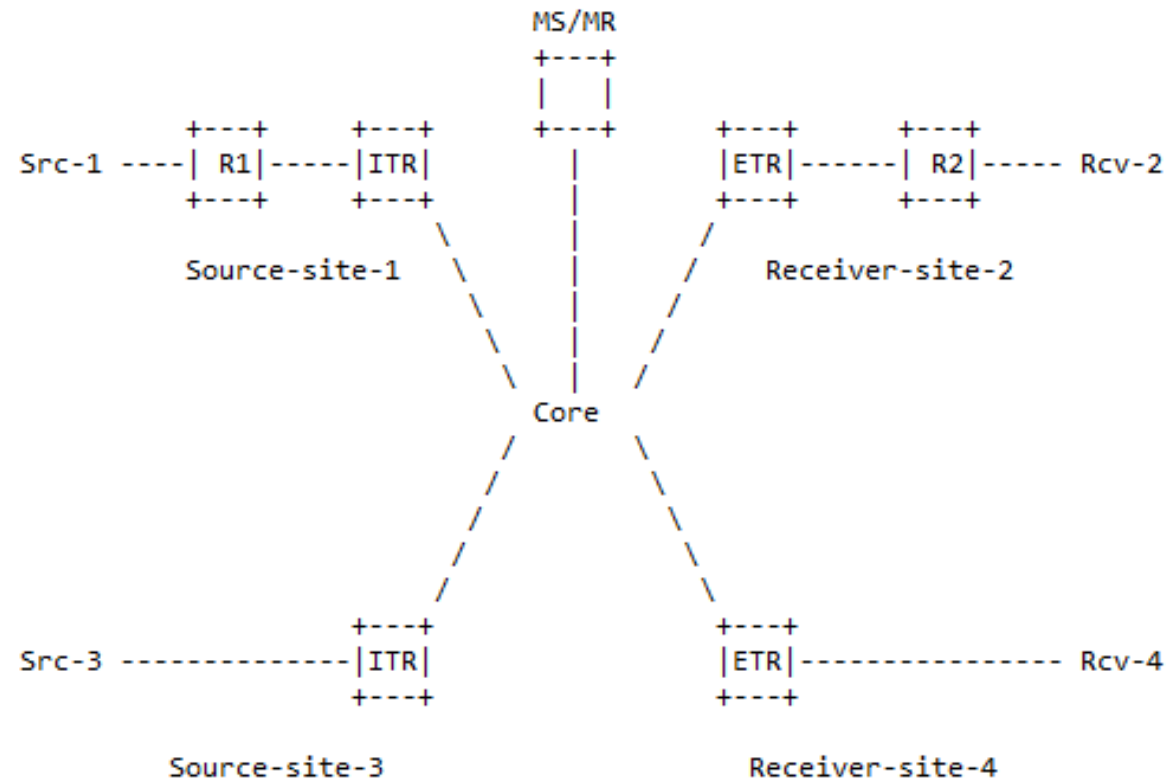


Figure 1: LISP Multicast Generic Reference Model