

LISP for the Satellite Network

draft-farinacci-lisp-satellite-network-02

IETF LISP WG Yokohama

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High-Level Goals

- The LISP overlay can run over any IP packet delivery underlay
- If a satellite network can deliver IP packets, we can have a LISP overlay run over it
- Very much like how LISP runs over the (capital-I) Internet, the 3GPP network, the ICAO network

How it Works

- There is no **EID** state in the satellite network underlay
- The satellite network is unaware of the LISP overlay running over it
- The overlay requires the underlay to deliver packets to **RLOC** addresses the underlay can route to
- The underlay network can transport **IPv4** or **IPv6** packets and can be dual-stack
- When path optimization in the underlay is available, an **RLOC**-record can be a **source-route** of satellite node hops

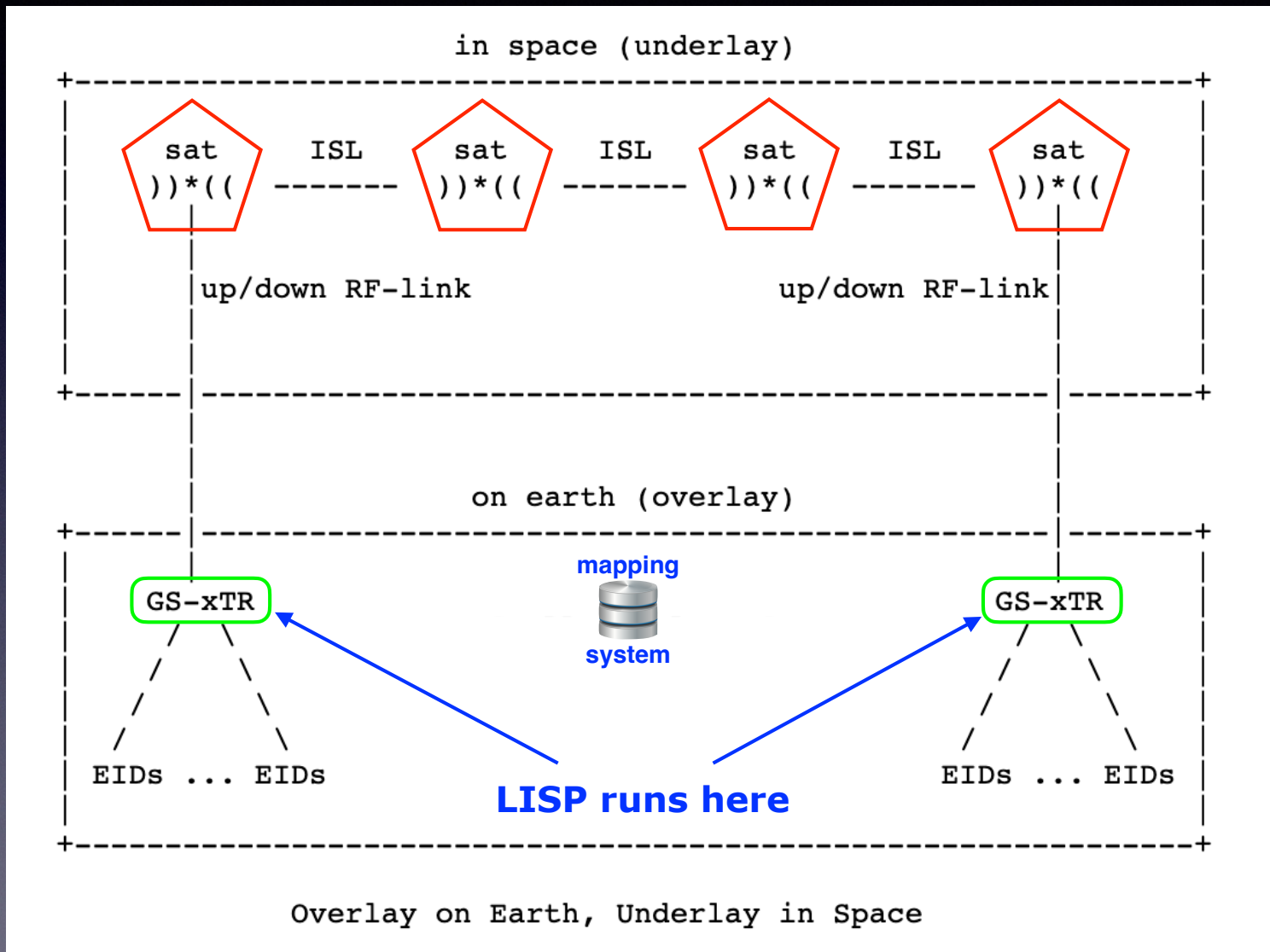
EID addresses in green

satellite network **doesn't** know about

RLOC addresses in red

satellite network **does** know about

How it Works



Draft Status

Appendix B. Document Change Log

B.1. Changes to draft-farinacci-lisp-satellite-network-02

- * Submitted February 2023.
- * Add references to proposed standard documents.
- * Refer to lispers.net Decentralized-NAT for testing direct xTR to xTR.
- * Added test case where the GS-xTR is both on the underlay and the LISP overlay.

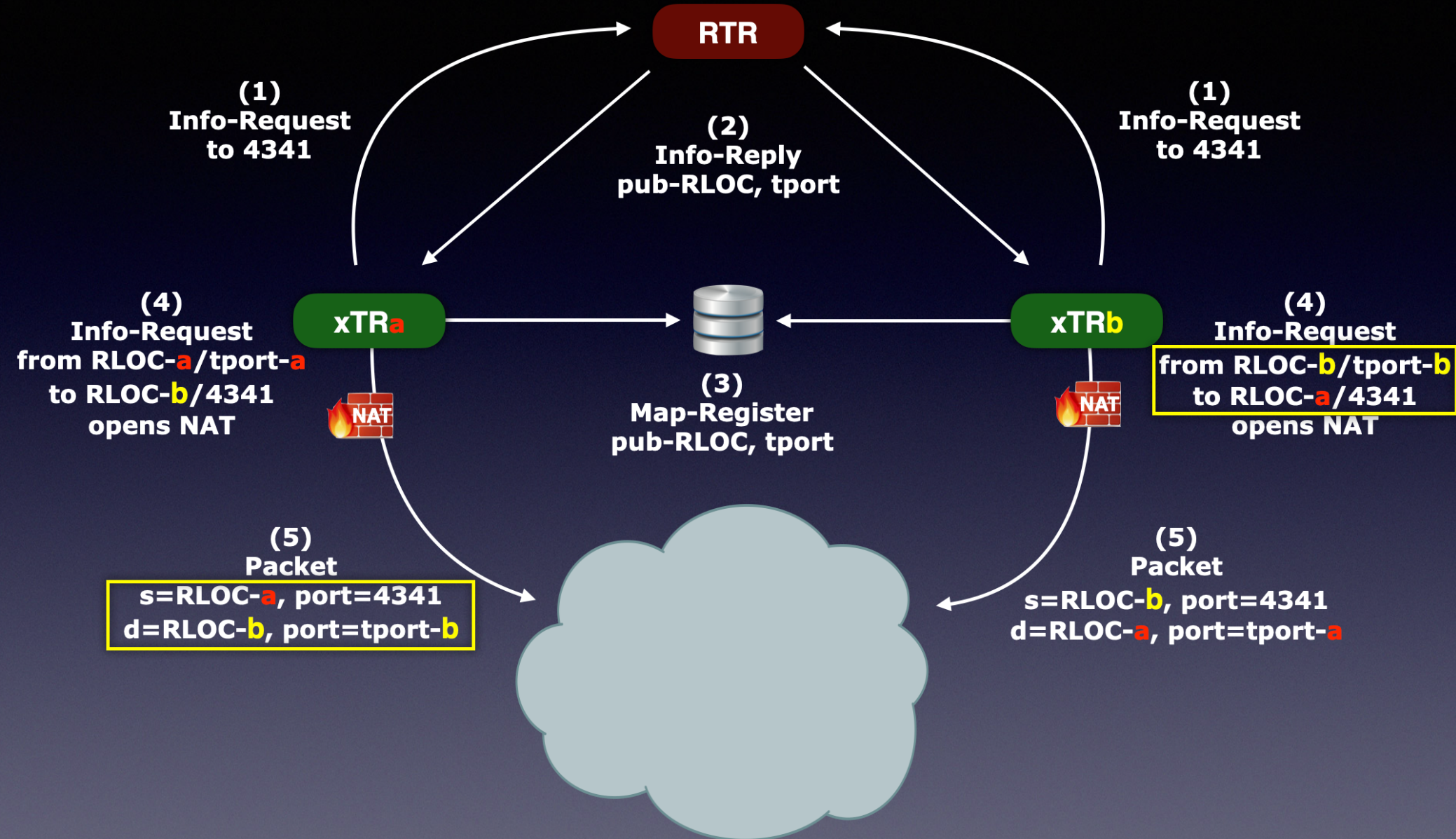
B.2. Changes to draft-farinacci-lisp-satellite-network-01

- * Submitted September 2022.
- * Added text about how the mapping system is used in a rural location when the only Internet link available is the satellite link.
- * Added the Test and Deployment Experience section to document what has been tested so far.

B.3. Changes to draft-farinacci-lisp-satellite-network-00

- * Initial posting April 2022.

Decentralized NAT



Testing Status

- We have formed a small group of testers
- Conducting telemetry tests on the Satellite network using LISP RLOC-probing (and ltr)
- Testing direct paths via Decent-NAT
- Looking for more testers
 - If you want to join, email support@lispers.net
 - Get your Starlink kit before joining at www.starlink.com

Questions/Comments?

Should draft become a Working Group document?