LISP-MN Demo

draft-ietf-lisp-mn-05

IETF Montreal
July 2019

Dino Farinacci
Albert Lopez
Albert Cabellos
What We Are Demoing

- LISP-MN on an iPhone
- RTRs deployed in GCP and AWS
- LISP-MN to LISP CN behind NATs
- LISP-MN to non-LISP CN behind NATs
- Interworking via LISP-NAT
Some Magic Sauce

• LISP-MN is not running a control-plane

• LISP-MN map-cache configured with:

  0.0.0.0/0 -> PETRs (RTRs)

• RTRs configured to glean xTR mappings

• NAT-traversal logic occurs in data-plane

• An effort to implement an even lighter weight xTR

One that runs in a dash-cam perhaps
Live Ping Demo

Demo Topology

EIDs
13.13.13.13
LISP Encap
g-rtr1
Internet Underlay
a-rtr1
DNS Server
Web Server
13.13.13.13
LISP-NAT
8.8.8.8
www.lispers.net

RLOCs

* -rtr* lispers.net

- NAT
- NAT
- NAT
- NAT
Load-Splitting Pings


LISP Encap

Internet Underlay

www.lispers.net

Load-Split pings use symmetric path

container map-cache

Load-Split pings
Audio Demo

Streaming audio and downloading music while (driving) moving across:

- xfinity wifi
- peets wifi
- AT&T LTE (5GE LOL)
- AT&T 4G

No audible packet loss!
Caveats

- LISP-MN must send before it can receive
  - 2 LISP-MNs can talk to each other as long as they have talked to another LISP node or non-LISP node
- Latency exists to learn LISP-MN when it is discovered
  - But less than doing a mapping system lookup
- Asymmetry Problem:
  - If LISP-MN1 uses RTR1 and LISP-MN2 uses RTR2, they can’t find each other
  - Each must use same 5-tuple hash
Todo List

• Enable RLOC-probing for reachability
• Enable RLOC-probing for LISP-Crypto Key Exchange
• Enable multiple EID and multi IID support
• Multicast Support (can show at next IETF)
Questions/Reactions/Tomatoes?