LISP WG Charter Mailing List Summary

Prague, July 2015, IETF-93

Chairs

1. Move RFC6830 to Proposed Standard
   - Refocus the spec. away form the core Internet scaling problem
   - Focus on scalable and flexible overlay
2. Use-cases
   - Maybe too individual submissions to be included in the new charter
   - Opinions of the non-authors?
   - Pro/Cons?

Focus on LISP as Overlay technology

- LISP has brought value when used as scalable, flexible and programmable overlay

- Refocus of RFC6830 in terms of wording, not protocol behavior
  - Can be done in parallel to the use-cases

- An overlay feature is reducing routes in the core, is this the same as "the core scaling problem"?

- Are we implicitly saying that LISP does not fix the global routing scalability problem?
  - Is the Internet ready for a 'split' solution?

Use-Cases (I)

- LISP VPN (including integration with IPsec)
- NVO3 use case for DC virtualization (including support for VM mobility)
- SDN/NFV (including support for service chaining)
- IoT (LISP as connecting infrastructure for IoT applications)
- Mobile Node
  - Ultra-low latency for 5G scenarios, competitive (route optimization vs HA-based)
- Support Multi-protocol encapsulation (IPSec, L2 overlays, explicit tagging and meta-data)
  - VXLAN-GPE is supported by NVO3
  - Drafts to support LISP and VXLAN-GPE (draft-lewis-lisp-gpe-02)

Use-Cases (II)

- Accommodate NVO3 control-plane requirements and use-cases
- LISP control-plane for SFC in conjunction with NVO3 overlays

Use-Cases (III)

- LISP could represent the pull control-plane for NVO3 use-cases
- LISP-TE already supports SDN/NFV use-cases
- IoT use-case
- LISP-MN generalized
  - Any type of address mobility (IP, MAC, geo-coordinate...)
- How overlays can be used to traffic-engineer underlays.
- How to simplify multicast when the underlay does not support multicast at all or partially.
- How mobility of EIDs, multicast, and data-plane security all work together.
- NAT-Traversal
  - How to make all other features to work across NAT

Use-Cases: Summary (overlapping)

- LISP VPN
- NVO3
- SDN/NFV
- SFC
- IoT
- Mobile Node
- Multi-protocol encapsulation

- Overlays to TE Underlays
- Multicast
- VM mobility
- Focus on pull-based control-plane
- NAT-traversal

- All features should work together
- Prioritize first three areas, leave the door open
  - Too open?