LISP Control Plane for NVO3
<draft-maino-nvo3-lisp-cp-03>

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Overview

- Input to NVO3 gap analysis
- Maps LISP control plane functions on the NVO3 reference model
- Identifies L2 data planes
  - –L2 LISP, VXLAN, NVGRE, LISP/VXLAN-GPE
- Defines MAC address lookup and describes VM Mobility at L2
- Complementary to draft-hertoghs-nvo3-lisp-unfied-control-plane

Benefits

- Reduced use of Multicast
  - –Replace “flood-and-learn” with unicast mapping system lookup
  - –Contained ARP broadcast domain
  - –Underlay multicast not needed for unicast overlay services
- Support multi homing
- Support fast mobility
- Support L2/L3 NVE services
- Address Family independent (IPv4/IPv6)

LISP Options for NVO3

- Support multiple data path encapsulations:
  - –L3 LISP (draft-ietf-lisp) } **L3 NVE Services**
  - –L2 LISP (draft-smith-lisp-layer2)
  - –VXLAN (draft-mahalingam-dutt-dcops-vxlan) } **L2 NVE Services**
  - –NVGRE (draft-sridharan-virtualization-nvgre)
  - –LISP-GPE (draft-lewis-lisp-gpe)
  - –VXLAN-GPE (draft-quinn-lisp-gpe) } **Unified L2/L3 NVE Services**
- Extensible via LISP Canonical Address Format (LCAF)
  - –draft-ietf-lisp-lcaf

Requests to NVO3 WG

- Add to draft-gbclt-nvo3-gap-analysis
  - –LISP as control plane option
  - –LISP, LISP-GPE, and VXLAN-GPE as data plane options

THANKS!