LISP Generic Protocol Extension (LISP-GPE)
draft-lewis-lisp-gpe

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Why LISP-GPE

- RFC6830 relies on the inspection of the first byte of the inner header to indicate the inner header’s IP version
- Use cases for both DC host mobility and L2 VPNs require encapsulation of Ethernet
- Desire of the authors to promote experimentation with LISP in these use cases
LISP-GPE

• Define lower 16 bits in first word of LISP header as protocol type
• Define Protocol bit (P bit)
  – P=0: payload MUST conform to RFC6830 as currently defined (i.e. IP[4,6])
  – P=1: Indicates presence of protocol type field
• When P bit is set, N, E and V bits must be Zero
Trade Offs

• The P bit comes at the expense of two features: Nonce, Map Versioning and Echo-Nonceing
Summary

• Enables operators/experimenters to use LISP for all protocols
• Compatible with draft-quinn-vxlan-gpe ➔ see presentation at NVO3 WG
• Working with authors of draft-yong-l3vpn-nvgre-vxlan-encap to align on common format