

LISP Generic Protocol Extension (LISP-GPE)

draft-lewis-lisp-gpe-02

- P. Quinn, D. Lewis, L. Kreeger, F. Maino, M. Smith, N. Yadav, Cisco
- *P. Agarwal, Broadcom*

IETF 91, [Honolulu, Hawaii](#)

Introduction

- LISP GPE is a proposal to modify the LISP header to carry payloads other than IPv4/IPv6 EID payloads.
- One critical motivation is to create and maintain forwarding plane compatibility with VXLAN-GPE (draft-quinn-vxlan-gpe)
- An important feature of the LISP dataplane is that the ETR does not need per-source state, we want to maintain that scalability. Thus the LISP header needs to have all the information the ETR requires in order to decap/forward

New in -02

- Added OAM Bit (O Bit)
- Added Versioning Bits (for explicit header version control)
- Shortened Protocol Type to 8 bits: Now, lower 8 bits in first word of LISP header define protocol type
- 8 bits recovered for future use
- Continues to align encap with draft-quinn-vxlan-gpe

LISP-GPE -02 Header

- Define lower 8 bits in first word of LISP header as protocol type
- **Add OAM and Header-Version bits**

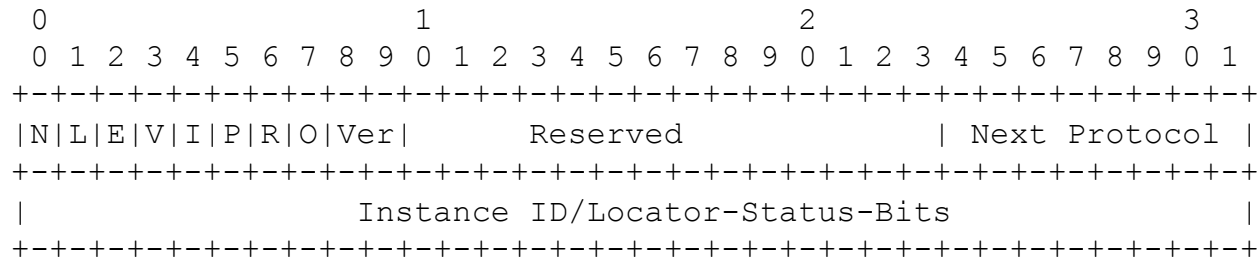


Figure 4: LISP-gpe Version bits (P=1)

Future Work

- The P bit comes at the expense of two features: Nonce, Map Versioning and Echo-Nonceing
- The Authors agreed to add explicit text discussing the reasoning's behind this choice
- The authors are looking at re-using those bits if they do indeed become deprecated – to indicate a two bit header version field
- Expect -03 to be posted soon to address this and spur commentary on the list