

LISP Working Group
Internet-Draft
Intended status: Experimental
Expires: August 20, 2018

A. Rodriguez-Natal
V. Ermagan
A. Smirnov
V. Ashtaputre
Cisco Systems
D. Farinacci
lispers.net
2 16, 2018

Vendor Specific LCAF
draft-ietf-lisp-vendor-lcaf-01

Abstract

This document describes a new LCAF for LISP, the Vendor Specific LCAF. This LCAF enables organizations to have internal encodings for LCAF addresses.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <https://datatracker.ietf.org/drafts/current/>.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on August 20, 2018.

Copyright Notice

Copyright (c) 2018 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to [BCP 78](#) and the IETF Trust's Legal Provisions Relating to IETF Documents (<https://trustee.ietf.org/license-info>) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in [Section 4.e](#) of

the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.

Table of Contents

- [1.](#) Introduction [2](#)
- [2.](#) Requirements Language [2](#)
- [3.](#) Vendor Specific LCAF [2](#)
- [4.](#) Security Considerations [3](#)
- [5.](#) Acknowledgments [3](#)
- [6.](#) IANA Considerations [4](#)
- [7.](#) Normative References [4](#)
- Authors' Addresses [4](#)

[1.](#) Introduction

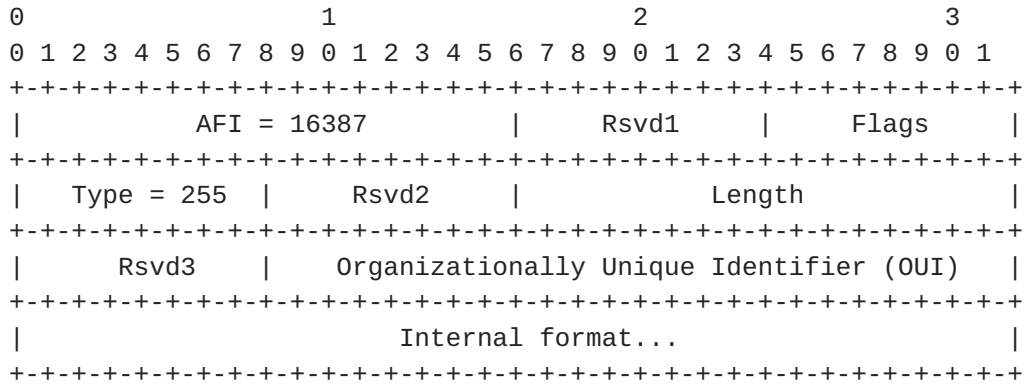
The LISP Canonical Address Format [[RFC8060](#)] defines the format and encoding for different address types that can be used on LISP [[RFC6830](#)] deployments. However, certain deployments require specific format encodings that may not be applicable outside of the use-case for which they are defined. The Vendor Specific LCAF allows organizations to create LCAF addresses to be used only internally on particular LISP deployments.

[2.](#) Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [[RFC2119](#)]

[3.](#) Vendor Specific LCAF

The Vendor Specific LCAF relies on using the IEEE Organizationally Unique Identifier (OUI) [[IEEE.802.2001](#)] to prevent collisions across vendors or organizations using the LCAF. The format of the Vendor Specific LCAF is provided below.



Vendor Specific LCAF

The Vendor Specific LCAF has the following fields.

Rsvd3: This 8-bit field is reserved for future use. It MUST be set to 0 on transmit and MUST be ignored on receipt.

Organizationally Unique Identifier (OUI): This is a 24-bit field that carries the IEEE OUI [[IEEE.802.2001](#)] of the organization.

Internal format: This is a variable length field that is left undefined on purpose. Each vendor or organization can define its own internal format(s) to use with the Vendor Specific LCAF.

The definition for the rest of the fields can be found in [[RFC8060](#)].

The Vendor Specific LCAF type SHOULD not be used in deployments where different organizations interoperate. If a LISP device receives a LISP message containing a Vendor Specific LCAF with an OUI that it does not understand, it SHOULD drop the message and a log action MUST be taken.

4. Security Considerations

This document enables organizations to define new LCAFs for their internal use. It is the responsibility of these organizations to properly assess the security implications of the formats they define.

5. Acknowledgments

The authors would like to thank Joel Halpern for his suggestions and comments regarding this document.

6. IANA Considerations

Following the guidelines of [RFC5226], this document requests IANA to update the "LISP Canonical Address Format (LCAF) Types" Registry defined in [RFC8060] to allocate the following assignment:

```

+-----+-----+-----+
| Value # | LISP LCAF Type Name | Reference |
+-----+-----+-----+
| 255     | Vendor Specific     | Section 3 |
+-----+-----+-----+
    
```

Table 1: Vendor Specific LCAF assignment

7. Normative References

[IEEE.802_2001] IEEE, "IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture", IEEE 802-2001, DOI 10.1109/ieeestd.2002.93395, July 2002, <<http://ieeexplore.ieee.org/servlet/opac?punumber=7732>>.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <<https://www.rfc-editor.org/info/rfc2119>>.

[RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", RFC 5226, DOI 10.17487/RFC5226, May 2008, <<https://www.rfc-editor.org/info/rfc5226>>.

[RFC6830] Farinacci, D., Fuller, V., Meyer, D., and D. Lewis, "The Locator/ID Separation Protocol (LISP)", RFC 6830, DOI 10.17487/RFC6830, January 2013, <<https://www.rfc-editor.org/info/rfc6830>>.

[RFC8060] Farinacci, D., Meyer, D., and J. Snijders, "LISP Canonical Address Format (LCAF)", RFC 8060, DOI 10.17487/RFC8060, February 2017, <<https://www.rfc-editor.org/info/rfc8060>>.

Authors' Addresses

Alberto Rodriguez-Natal
Cisco Systems
170 Tasman Drive
San Jose, CA
USA

Email: natal@cisco.com

Vina Ermagan
Cisco Systems
170 Tasman Drive
San Jose, CA
USA

Email: vermagan@cisco.com

Anton Smirnov
Cisco Systems
170 Tasman Drive
San Jose, CA
USA

Email: asmirnov@cisco.com

Vrushali Ashtaputre
Cisco Systems
170 Tasman Drive
San Jose, CA
USA

Email: vrushali@cisco.com

Dino Farinacci
lispers.net
San Jose, CA
USA

Email: farinacci@gmail.com

