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LISP Experimental Message & IANA Registry for LISP Packet Type Allocations
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Abstract

This document defines a registry for LISP Packet Type allocations. It also specifies a shared LISP message type for experimentation purposes.

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 RFC 2119 [RFC2119].

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on March 12, 2017.

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1. Introduction

The Locator/ID Separation Protocol (LISP, [RFC6830]) base specification defines a set of primitives that are identified with a packet type code. Several extensions have been proposed to add more LISP functionalities. For example, new message types are proposed in [I-D.ietf-lisp-ddt], [I-D.zhao-lisp-mn-extension], [I-D.boucadair-lisp-bulk], [I-D.ermagan-lisp-nat-traversal], or [I-D.boucadair-lisp-subscribe]. It is expected that additional LISP extensions will be proposed in the future.

In order to ease the tracking of LISP message types, this document proposes to create a "LISP Packet Types" IANA registry (see Section 4).

Because of the limited type space [RFC6830], this document specifies a shared LISP message type for experimentation purposes and proposes a procedure for registering LISP experiment sub-types (see Section 2) that make use of additional LISP capabilities associated with this message type. Concretely, one single LISP message type code is dedicated to experiments; sub-types are used to uniquely identify a given LISP experimental message. These identifiers are selected by the author(s) of the corresponding LISP specification that introduces a new experimental message type.

2. LISP Message Type for Experimentations

Figure 1 depicts a common LISP experimental message type. The type field MUST be set to 15 (see Section 4).

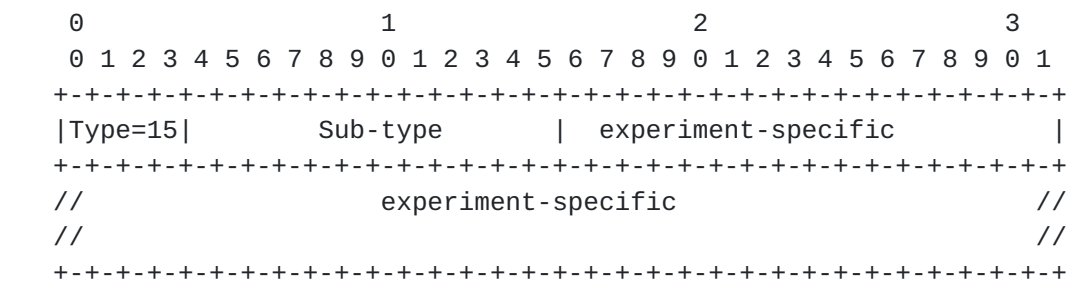

Figure 1: Common LISP Experimental Message Type

The "Sub-type" field conveys a unique identifier that is assigned on a First Come, First Served (FCFS) basis [RFC5226]. These identifiers are registered with IANA (see Section 4.2).

The exact structure of the 'experiment-specific' portion of the message is specified in the corresponding specification document.

3. Security Considerations

This document does not introduce any additional security issues other than those discussed in [RFC6830].

4. IANA Considerations

4.1. LISP Packet Types

IANA is requested to create a new protocol registry for LISP Packet Types, numbered 0-15. The registry must be initially populated with the following values:

Message	Code	Reference
Reserved	0	[RFC6830]
LISP Map-Request	1	[RFC6830]
LISP Map-Reply	2	[RFC6830]
LISP Map-Register	3	[RFC6830]
LISP Map-Notify	4	[RFC6830]
LISP Encapsulated Control Message	8	[RFC6830]
LISP Experimental Message	15	[This document]

The values in the ranges 5-7 and 9-14 can be assigned via Standards Action [RFC5226]. Documents that request for a new LISP packet type may indicate a preferred value in the corresponding IANA sections.

The value 15 is reserved for Experimental Use [RFC5226].

4.2. Sub-Types

IANA is requested to create a "LISP Experimental Message Sub-types" registry.

Entries are assigned on a FCFS basis.

The registration procedure should provide IANA with the desired codepoint and a point of contact. Providing a short description (together with an acronym, if relevant) of the foreseen usage of the experimental message is also encouraged.

5. Acknowledgments

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Many thanks to Luigi Iannone and Dino Farinacci for the review.

6. References

6.1. Normative references

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