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Label Distribution Protocol (LDP) Internet Assigned Numbers Authority (IANA) Considerations Update
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Abstract

This document augments the Internet Assigned Numbers Authority (IANA) considerations for the Label Distribution Protocol (LDP), for protocol fields that are Reserved in the LDP Specification but for which there are no IANA allocation policies.

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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1. Introduction

LDP [RFC5036] specifies a number of Reserved fields in various protocol elements, without establishing an allocation policy for them. This document describes updates to the IANA Considerations for LDP, for the following LDP TLVs:

- ATM Label TLV
- Frame Relay Label TLV
- Common Hello Parameters TLV
- Common Session Parameters TLV
- ATM Session Parameters TLV
- Frame Relay Session Parameters TLV

All Reserved bit-fields mentioned specifically in this document are set to zero on transmission and ignored on receipt, therefore protecting backwards compatibility.

2. IANA Considerations

IANA is requested to add the Registration Procedures for the LDP fields as specified in the upcoming sections. All other LDP IANA Registration Procedures are to remain unmodified.

2.1. ATM Label TLV

There are two Reserved bits in the ATM Label TLV (see Section 3.4.2.2 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

2.2. Frame Relay Label TLV

There are seven Reserved bits in the Frame Relay Label TLV (see Section 3.4.2.3 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

Additionally, Section 3.4.2.3 of [RFC5036] also defines values 0 and 2 for the "Len" field. "Len" values 1 and 3 are available for assignment via IETF Review [RFC5226]. Previously, there was no rule for allocation of these values.

2.3. Common Hello Parameters TLV

There are fourteen Reserved bits in the Common Hello Parameters TLV (see Section 3.5.2 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

2.4. Common Session Parameters TLV

There are six Reserved bits in the Common Session Parameters TLV (see Section 3.5.3 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

2.5. ATM Session Parameters TLV

Within the ATM Session Parameters TLV, there are twenty five Reserved bits in the header, and eight Reserved bits in the ATM Label Range Component (see Section 3.5.3 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

2.6. Frame Relay Session Parameters TLV

Within the Frame Relay Session Parameters TLV, there are twenty five Reserved bits in the header, and sixteen Reserved bits in the Frame Relay Label Range Component (see Section 3.5.3 of [RFC5036]). Allocations from these bits are made via IETF Review [RFC5226]. Previously, there was no rule for allocation of these bits.

Additionally, Section 3.5.3 of [RFC5036] also defines values 0 and 2 for the "Len" field. "Len" values 1 and 3 are available for assignment via IETF Review [RFC5226]. Previously, there was no rule for allocation of these values. These values are common with those of Section 2.2.

3. Security Considerations

This document does not modify the security properties for LDP.

4. Acknowledgments

The authors wish to thank Adrian Farrel and Loa Andersson for their valuable comments.

5. Normative References

[RFC5036] Andersson, L., Minei, I., and B. Thomas, "LDP Specification", RFC 5036, October 2007.

[RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 5226, May 2008.

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