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Layer Two Tunneling Protocol (L2TP) Internet Assigned Numbers Authority (IANA) Considerations Update

Status of this Memo

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Abstract

This document describes updates to the Internet Assigned Numbers Authority (IANA) considerations for the Layer Two Tunneling Protocol (L2TP).

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1. Introduction

This document provides guidance to the Internet Assigned Numbers Authority (IANA) regarding the registration of values related to the Layer Two Tunneling Protocol (L2TP), defined in [RFC2661], in accordance with BCP 26, [RFC2434].

1.1 Terminology

The following terms are used here with the meanings defined in BCP 26: "name space", "assigned value", "registration".

The following policies are used here with the meanings defined in BCP 26: "Private Use", "First Come First Served", "Expert Review", "Specification Required", "IETF Consensus", "Standards Action".

2. IANA Considerations

L2TP [RFC2661] defines a number of "magic" numbers to be maintained by the IANA. This section updates the criteria to be used by the IANA to assign additional numbers in each of these lists.

Each of the values identified in this document that require a registration criteria update are currently maintained by IANA and have a range of values from 0 to 65 535, of which a very small number have been allocated (the maximum number allocated within any one range is 46) [L2TP-IANA]. Given the nature of these values, it is not expected that any will ever run into a resource allocation problem if registration allocation requirements are relaxed from their current state.

The recommended criteria changes for IANA registration are listed in the following sections. In one case, the registration criteria is currently defined as First Come First Served and should be made more strict, others are defined as IETF Consensus and need to be relaxed. The relaxation from IETF Consensus is motivated by specific cases in which values that were never intended to be vendor-specific have had to enter early field trials or be released in generally available products with vendor-specific values while awaiting documents to be formalized. In most cases, this results in products that have to support both the vendor-specific value and IETF value indefinitely.

For registration requests where a Designated Expert should be consulted, the responsible IESG Area Director should appoint the Designated Expert.

For registration requests requiring Expert Review, the Designated Expert should consult relevant WGs as appropriate (e.g., the l2tpext WG at the time of this writing).

The basic guideline for the Expert Review process will be to approve the assignment of a value only if there is a document being advanced that clearly defines the values to be assigned, and there is active

implementation development (perhaps entering early field or interoperability trails, requiring assigned values to proceed without having to resort to a chosen vendor-specific method).

2.1 Control Message AVPs

IANA manages the "Control Message Attribute Value Pairs" [L2TP-IANA] name space, of which 0 - 46 have been assigned. The criteria for assignment was originally IETF Consensus. Further values should be assigned upon Expert Review.

2.2 Message Type AVP Values

IANA manages the "Message Type AVP (Attribute Type 0) Values" [L2TP-IANA] name space, of which 0 - 16 have been assigned. The criteria for assignment was originally IETF Consensus. Further values should be assigned upon Expert Review.

2.3 Result Code AVP Values

IANA maintains a list of "Result Code values for the StopCCN message," "Result Code values for the CDN message," and "General Error Codes" [L2TP-IANA]. The criteria for Error Code assignment was originally First Come First Served, and the criteria for CDN and StopCCN Result Codes were originally IETF Consensus. Further values for all Result and Error codes should be assigned upon Expert Review.

2.4 Remaining Values

All criteria for L2TP values maintained by IANA and not mentioned specifically in this document remain unchanged.

3. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[RFC2434] Alvestrand, H. and T. Narten, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 2434, October 1998.

[RFC2661] Townsley, W., Valencia, A., Rubens, A., Pall, G., Zorn, G. and B. Palter, "Layer Two Tunneling Layer Two Tunneling Protocol (L2TP)", RFC 2661, August 1999.

[L2TP-IANA] Internet Assigned Numbers Authority (IANA), "Layer Two Tunneling Protocol 'L2TP' - RFC 2661", http://www.iana.org/assignments/l2tp-parameters

4. Security Considerations

This focuses on IANA considerations, and does not have security considerations.

5. Acknowledgements

Some of this text and much of the format of this document was taken from an internet document on EAP IANA Considerations authored by Bernard Aboba.

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7. Full Copyright Statement

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