

Network Working Group
Request for Comments: 3377
Category: Standards Track

J. Hodges
Sun Microsystems Inc.
R. Morgan
University of Washington
September 2002

Lightweight Directory Access Protocol (v3):
Technical Specification

Status of this Memo

This document specifies an Internet standards track protocol for the Internet community, and requests discussion and suggestions for improvements. Please refer to the current edition of the "Internet Official Protocol Standards" (STD 1) for the standardization state and status of this protocol. Distribution of this memo is unlimited.

Copyright Notice

Copyright (C) The Internet Society (2002). All Rights Reserved.

Abstract

This document specifies the set of RFCs comprising the Lightweight Directory Access Protocol Version 3 (LDAPv3), and addresses the "IESG Note" attached to RFCs 2251 through 2256.

1. Background and Motivation

The specification for the Lightweight Directory Access Protocol version 3 (LDAPv3) nominally comprises eight RFCs which were issued in two distinct subsets at separate times -- RFCs 2251 through 2256 first, then RFCs 2829 and 2830 following later.

RFC 2251 through 2256 do not mandate the implementation of any satisfactory authentication mechanisms and hence were published with an "IESG Note" discouraging implementation and deployment of LDAPv3 clients or servers implementing update functionality until a Proposed Standard for mandatory authentication in LDAPv3 is published.

RFC 2829 was subsequently published in answer to the IESG Note.

The purpose of this document is to explicitly specify the set of RFCs comprising LDAPv3, and formally address the IESG Note through explicit inclusion of RFC 2829.

2. Specification of LDAPv3

The Lightweight Directory Access Protocol version 3 (LDAPv3) is specified by this set of nine RFCs:

- [RFC2251] Lightweight Directory Access Protocol (v3) [the specification of the LDAP on-the-wire protocol]
- [RFC2252] Lightweight Directory Access Protocol (v3): Attribute Syntax Definitions
- [RFC2253] Lightweight Directory Access Protocol (v3): UTF-8 String Representation of Distinguished Names
- [RFC2254] The String Representation of LDAP Search Filters
- [RFC2255] The LDAP URL Format
- [RFC2256] A Summary of the X.500(96) User Schema for use with LDAPv3
- [RFC2829] Authentication Methods for LDAP
- [RFC2830] Lightweight Directory Access Protocol (v3): Extension for Transport Layer Security

And, this document (RFC3377).

The term "LDAPv3" is often used informally to refer to the protocol specified by the above set of RFCs, or subsets thereof. However, the LDAPv3 protocol suite, as defined here, should be formally identified in other documents by a normative reference to this document.

3. Addressing the "IESG Note" in RFCs 2251 through 2256

The IESG approved publishing RFCs 2251 through 2256 with an attendant IESG Note included in each document. The Note begins with:

This document describes a directory access protocol that provides both read and update access. Update access requires secure authentication, but this document does not mandate implementation of any satisfactory authentication mechanisms.

The Note ends with this statement:

Implementors are hereby discouraged from deploying LDAPv3 clients or servers which implement the update functionality, until a Proposed Standard for mandatory authentication in LDAPv3 has been approved and published as an RFC.

[RFC2829] is expressly the "Proposed Standard for mandatory authentication in LDAPv3" called for in the Note. Thus, the IESG Note in [RFC2251], [RFC2252], [RFC2253], [RFC2254], [RFC2255], and [RFC2256] is addressed.

4. Security Considerations

This document does not directly discuss security, although the context of the aforementioned IESG Note is security related, as is the manner in which it is addressed.

Please refer to the referenced documents, especially [RFC2829], [RFC2251], and [RFC2830], for further information concerning LDAPv3 security.

5. Acknowledgements

The authors thank Patrik Faltstrom, Leslie Daigle, Thomas Narten, and Kurt Zeilenga for their contributions to this document.

6. References

- [RFC2251] Wahl, M., Kille, S. and T. Howes, "Lightweight Directory Access Protocol (v3)", RFC 2251, December 1997.
- [RFC2252] Wahl, M., Coulbeck, A., Howes, T. and S. Kille, "Lightweight Directory Access Protocol (v3): Attribute Syntax Definitions", RFC 2252, December 1997.
- [RFC2253] Kille, S., Wahl, M. and T. Howes, "Lightweight Directory Access Protocol (v3): UTF-8 String Representation of Distinguished Names", RFC 2253, December 1997.
- [RFC2254] Howes, T., "The String Representation of LDAP Search Filters", RFC 2254, December 1997.
- [RFC2255] Howes, T. and M. Smith, "The LDAP URL Format", RFC 2255, December 1997.
- [RFC2256] Wahl, M., "A Summary of the X.500(96) User Schema for use with LDAPv3", RFC 2256, December 1997.

- [RFC2829] Wahl, M., Alvestrand, H., Hodges, J. and R. Morgan, "Authentication Methods for LDAP", RFC 2829, May 2000.
- [RFC2830] Hodges, J., Morgan, R. and M. Wahl, "Lightweight Directory Access Protocol (v3): Extension for Transport Layer Security", RFC 2830, May 2000.

7. Intellectual Property Rights Notices

The IETF takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on the IETF's procedures with respect to rights in standards-track and standards-related documentation can be found in BCP-11. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementors or users of this specification can be obtained from the IETF Secretariat.

The IETF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights which may cover technology that may be required to practice this standard. Please address the information to the IETF Executive Director.

8. Authors' Addresses

Jeff Hodges
Sun Microsystems, Inc.
901 San Antonio Road, USCA22-212
Palo Alto, CA 94303
USA

Phone: +1-408-276-5467
EMail: Jeff.Hodges@sun.com

RL "Bob" Morgan
Computing and Communications
University of Washington
Seattle, WA
USA

Phone: +1-206-221-3307
EMail: rlmorgan@u.washington.edu

9. Full Copyright Statement

Copyright (C) The Internet Society (2002). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.