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Lightweight Directory Access Protocol (LDAP): Technical Specification Road Map

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Abstract

The Lightweight Directory Access Protocol (LDAP) is an Internet protocol for accessing distributed directory services which act in accordance with X.500 data and service models. This document provides a roadmap of the LDAP Technical Specification.

Conventions

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 BCP 14 [RFC2119].

1. The LDAP Technical Specification

The technical specification detailing version 3 of the Lightweight Directory Access Protocol (LDAP), an Internet Protocol, consists of this document and the following documents:

LDAP: The Protocol [Protocol],
LDAP: Directory Information Models [Models],
LDAP: Authentication Methods and Connection Level Security Mechanisms [AuthMeth],
LDAP: String Representation of Distinguished Names [LDAPDN],
LDAP: String Representation of Search Filters [Filters],
LDAP: Uniform Resource Locator [LDAPURL],
LDAP: Syntaxes and Matching Rules [Syntaxes],
LDAP: Internationalized String Preparation [LDAPprep], and
LDAP: User Schema [Schema].

The terms "LDAP" and "LDAPv3" are commonly used to informally refer to the protocol specified by this technical specification. The LDAP suite, as defined here, should be formally identified in other documents by a normative reference to this document.

LDAP is an extensible protocol. Extensions to LDAP may be specified in other documents. Nomenclature denoting such combinations of LDAP-plus-extension(s) is not defined by this document but may be defined in some future document(s). Extensions are expected to be truly optional.

IANA (Internet Assigned Numbers Authority) considerations for LDAP described in BCP 64 [BCP64bis] apply fully to this revision of the LDAP technical specification.

2. Relationship to X.500

This technical specification defines LDAP in terms of [X.500] as an X.500 access mechanism. An LDAP server MUST act in accordance with X.500(1993) series of International Telecommunication Union - Telecom Standardization (ITU-T) Recommendations when providing the service. However, it is not required that an LDAP server make use of any X.500 protocols in providing this service, e.g. LDAP can be mapped onto any other directory system so long as the X.500 data and service models [X.501][X.511] as used in LDAP is not violated in the LDAP interface.

This technical specification explicitly incorporates portions of X.500(93). Later revisions of X.500 do not automatically apply.

3. Security Considerations

LDAP security considerations are discussed in each document comprising the technical specification.

4. Relationship to Obsolete Specifications

This technical specification, as defined in Section 1, obsoletes entirely the previously defined LDAP technical specification [RFC3377] (which consists of RFC 2251-2256, RFC 2829-2830, RFC 3771, and RFC 3377 itself). The technical specification was significantly reorganized.

This document replaces RFC 3377 as well as Section 3.3 of RFC 2251. [Models] replaces portions of RFC 2251, RFC 2252 and RFC 2256. [Protocol] replaces the majority RFC 2251, portions of RFC 2252, and all of RFC 3771. [AuthMeth] replaces RFC 2829, RFC 2830, and portions of RFC 2251. [Syntaxes] replaces the majority of RFC 2252 and portions of RFC 2256. [Schema] replaces the majority of RFC 2256. [LDAPDN] replaces RFC 2253. [Filters] replaces RFC 2254. [LDAPURL] replaces RFC 2255.

[LDAPprep] is new to this revision of the LDAP technical specification.

Each document of this specification contains appendices summarizing changes to all sections of the specifications they replace. Appendix A.1 of this document details changes made to RFC 3377. Appendix A.2 of this document details changes made to Section 3.3 of RFC 2251.

Additionally, portions of this technical specification update and/or replace a number of other documents not listed above. These

relationships are discussed in the documents detailings these portions of this technical specification.

5. Acknowledgments

This document is based largely on RFC 3377 by J. Hodges and R. Morgan, a product of the LDAPBIS and LDAPEXT Working Groups. The document also borrows from RFC 2251 by M. Wahl, T. Howes, and S. Kille, a product of the ASID Working Group.

This document is a product of the IETF LDAPBIS Working Group.

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7. References

[[Note to the RFC Editor: please replace the citation tags used in referencing Internet-Drafts with tags of the form RFCnnnn.]]

7.1. Normative References

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

[BCP64bis] Zeilenga, K., "IANA Considerations for LDAP", draft-ietf-ldapbis-bcp64-xx.txt, a work in progress.

[Protocol] Sermersheim, J. (editor), "LDAP: The Protocol", draft-ietf-ldapbis-protocol-xx.txt, a work in progress.

[Models] Zeilenga, K. (editor), "LDAP: Directory Information Models", draft-ietf-ldapbis-models-xx.txt, a work in progress.

[AuthMeth] Harrison, R. (editor), "LDAP: Authentication Methods and Connection Level Security Mechanisms", draft-ietf-ldapbis-authmeth-xx.txt, a work in progress.

[LDAPDN] Zeilenga, K. (editor), "LDAP: String Representation of Distinguished Names", draft-ietf-ldapbis-dn-xx.txt, a work in progress.

[Filters] Smith, M. (editor), LDAPbis WG, "LDAP: String Representation of Search Filters", draft-ietf-ldapbis-filter-xx.txt, a work in progress.

[LDAPURL] Smith, M. (editor), "LDAP: Uniform Resource Locator", draft-ietf-ldapbis-url-xx.txt, a work in progress.

[Syntaxes] Legg, S. (editor), "LDAP: Syntaxes and Matching Rules", draft-ietf-ldapbis-syntaxes-xx.txt, a work in progress.

[LDAPprep] Zeilenga, K., "LDAP: Internationalized String Preparation", draft-ietf-ldapbis-strprep-xx.txt, a work in progress.

[Schema] Dally, K. (editor), "LDAP: User Schema", draft-ietf-ldapbis-user-schema-xx.txt, a work in progress.

[X.500] International Telecommunication Union - Telecommunication Standardization Sector, "The Directory -- Overview of concepts, models and services," X.500(1993) (also ISO/IEC 9594-1:1994).

[X.501] International Telecommunication Union - Telecommunication Standardization Sector, "The Directory -- Models," X.501(1993) (also ISO/IEC 9594-2:1994).

[X.511] International Telecommunication Union - Telecommunication Standardization Sector, "The Directory: Abstract Service Definition", X.511(1993) (also ISO/IEC 9594-3:1993).

7.2. Informative References

None.

Appendix A. Changes to Previous Documents

This appendix outlines changes this document makes relative to the documents it replaces (in whole or in part).

Appendix A.1. Changes to RFC 3377

This document is nearly a complete rewrite of RFC 3377 as much of the material of RFC 3377 is no longer applicable. The changes include

redefining the terms "LDAP" and "LDAPv3" to refer to this revision of the technical specification.

Appendix A.2. Changes to Section 3.3 of RFC 2251

The section was modified slightly (the word "document" was replaced with "technical specification") to clarify that it applies to the entire LDAP technical specification.

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