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

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.

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Abstract

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

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 [RFC4511]
      LDAP: Directory Information Models [RFC4512]
      LDAP: Authentication Methods and Security Mechanisms [RFC4513]
      LDAP: String Representation of Distinguished Names [RFC4514]
      LDAP: String Representation of Search Filters [RFC4515]
      LDAP: Uniform Resource Locator [RFC4516]
      LDAP: Syntaxes and Matching Rules [RFC4517]
      LDAP: Internationalized String Preparation [RFC4518]
      LDAP: Schema for User Applications [RFC4519]

The terms "LDAP" and "LDAPv3" are commonly used to refer informally
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-extensions is not defined by this document but may be
defined in some future document(s). Extensions are expected to be
truly optional. Considerations for the LDAP extensions described in
BCP 118, RFC 4521 [RFC4521] fully apply to this revision of the LDAP
Technical Specification.

IANA (Internet Assigned Numbers Authority) considerations for LDAP
described in BCP 64, RFC 4520 [RFC4520] apply fully to this revision
of the LDAP technical specification.

1.1. 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].

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
the X.500 (1993) series of International Telecommunication Union -
Telecommunication 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.
For example, 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, are 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 to
this technical specification.

3. Relationship to Obsolete Specifications

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

This document replaces RFC 3377 as well as Section 3.3 of RFC 2251.
[RFC4512] replaces portions of RFC 2251, RFC 2252, and RFC 2256.
[RFC4511] replaces the majority RFC 2251, portions of RFC 2252, and
all of RFC 3771. [RFC4513] replaces RFC 2829, RFC 2830, and portions
of RFC 2251. [RFC4517] replaces the majority of RFC 2252 and
portions of RFC 2256. [RFC4519] replaces the majority of RFC 2256.
[RFC4514] replaces RFC 2253. [RFC4515] replaces RFC 2254. [RFC4516]
replaces RFC 2255.

[RFC4518] 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 detailing these portions
of this technical specification.

4. Security Considerations

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

5. Acknowledgements

   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.

6. Normative References

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

   [RFC4511]   Sermersheim, J., Ed., "Lightweight Directory Access
                   Protocol (LDAP): The Protocol", RFC 4511, June 2006.

   [RFC4512]   Zeilenga, K., "Lightweight Directory Access Protocol
                   (LDAP): Directory Information Models", RFC 4512, June
                   2006.

   [RFC4513]   Harrison, R., Ed., "Lightweight Directory Access
                   Protocol (LDAP): Authentication Methods and Security
                   Mechanisms", RFC 4513, June 2006.

   [RFC4514]   Zeilenga, K., Ed., "Lightweight Directory Access
                   Protocol (LDAP): String Representation of Distinguished
                   Names", RFC 4514, June 2006.

   [RFC4515]   Smith, M., Ed. and T. Howes, "Lightweight Directory
                   Access Protocol (LDAP): String Representation of Search
                   Filters", RFC 4515, June 2006.

   [RFC4516]   Smith, M., Ed. and T. Howes, "Lightweight Directory
                   Access Protocol (LDAP): Uniform Resource Locator", RFC
                   4516, June 2006.

   [RFC4517]   Legg, S., Ed., "Lightweight Directory Access Protocol
                   (LDAP): Syntaxes and Matching Rules", RFC 4517, June
                   2006.

   [RFC4518]   Zeilenga, K., "Lightweight Directory Access Protocol
                   (LDAP): Internationalized String Preparation", RFC
                   4518, June 2006.

   [RFC4519]   Sciberras, A., Ed., "Lightweight Directory Access
                   Protocol (LDAP): Schema for User Applications", RFC
                   4519, June 2006.

   [RFC4520]   Zeilenga, K., "Internet Assigned Numbers Authority
                   (IANA) Considerations for the Lightweight Directory
                   Access Protocol (LDAP)", BCP 64, RFC 4520, June 2006.

   [RFC4521]   Zeilenga, K., "Considerations for LDAP Extensions", BCP
                   118, RFC 4521, June 2006.

   [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).

Appendix A. Changes to Previous Documents

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

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.

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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