      Lightweight Directory Access Protocol (LDAP) Schema for Supporting
       the Extensible Messaging and Presence Protocol (XMPP) in White Pages

Abstract

   The Extensible Messaging and Presence Protocol (XMPP) identifies
   users by use of Jabber IDs (JIDs). The Lightweight Directory Access
   Protocol (LDAP) enables provision of a white pages service with a
   schema relating to users and support for Internet protocols. This
   specification defines a schema to enable XMPP JIDs to be associated
   with objects in an LDAP directory so that this information can be
   used with white pages applications.

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1. Introduction

   Extensible Messaging and Presence Protocol (XMPP) [RFC6120]
   identifies users by use of Jabber IDs (JIDs). The Lightweight
   Directory Access Protocol (LDAP) [RFC4510] enables provision of a
   white pages service with a schema relating to users and support for
   Internet protocols defined in [RFC4519]. This specification defines
   a schema to enable XMPP JIDs to be associated with LDAP directory
   objects so that this information can be used with white pages
   applications.

   The LDAP schema for storing JIDs is defined to enable JIDs to be
   associated with any object stored in the directory. This is done by
   associating the new JID Attribute with a new Auxiliary Object Class
   called JIDObject.

2. Conventions Used in This Document

   The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
   "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and
   "OPTIONAL" in this document are to be interpreted as described in
   BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all
   capitals, as shown here.

3. Schema Definition

   This section defines the schema used to store JIDs in the directory.

3.1. Object Class

   This section defines a new Auxiliary Object Class called JIDObject,
   which MAY be associated with any structural Object Class. This
   Object Class is used to augment entries for objects that act or may
   act as an XMPP client. The JID attribute is optional in order to
   enable configuring an object that is allowed to have an associated
   JID but does not currently have one.

        (1.3.6.1.1.23.1 NAME 'JIDObject'
        AUXILIARY
        MAY jid)

3.2. Attribute

   This section defines the JID attribute referenced by the JIDObject
   Auxiliary Object Class. The syntax of the JID attribute MUST follow
   the rules of [RFC7622]. The JID stored MUST be a bare JID (e.g., a
   JID such as romeo@shakespeare.example.com representing a human user)
   and not a full JID (e.g., a JID such as
   romeo@shakespare.example.com/AABBCC, which represents a specific XMPP
   client used by the human user and is identified by the resource
   AABBCC). Note that the LDAP directory server is not expected to
   enforce this syntax. The syntax rules are for LDAP clients setting
   this attribute, noting that human usage is a key target.
   Applications using this attribute should format that string in a
   manner appropriate to the application, and XMPP applications SHOULD
   apply [RFC7622] to the attribute. The directory service doesn't
   enforce the JID syntax, and values are compared according to the
   matching rules specified in the attribute definition.

   Note that for the convenience of users and administrators as well as
   implementers, the Directory String syntax and the caseIgnoreMatch
   matching rule are chosen to allow entry and matching of values
   according to common rules used within the directory. As this syntax
   and matching rule differ from [RFC7622], false positives and false

negatives can possibly occur. This is not anticipated to cause
operational issues (based on implementation experience with similar
syntax/matching rule mismatches).

```
     ( 1.3.6.1.1.23.2 NAME 'jid'
        EQUALITY caseIgnoreMatch
        SUBSTR caseIgnoreSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15 )
```

1.3.6.1.4.1.1466.115.121.1.15 refers to the Directory String syntax
defined in [RFC4517].

4. IANA Considerations

The following registrations have been made in the "Lightweight
Directory Access Protocol (LDAP) Parameters" registry
<https://www.iana.org/assignments/ldap-parameters> in line with
BCP 64 [RFC4520].

Object Identifier Registration

An object identifier has been assigned to support the registrations
necessary for this specification by an entry in the Internet
Directory Numbers (iso.org.dod.internet.directory [1.3.6.1.1.])
registry:

```
        Decimal: 23
        Name: xmpp
        Description: LDAP schema for XMPP
```

Two object identifiers have been assigned:

'JIDObject' Descriptor Registration

```
        Name: JIDObject
        Type: O
        OID: 1.3.6.1.1.23.1
```

'jid' Descriptor Registration

```
        Name: jid
        Type: A
        OID: 1.3.6.1.1.23.2
```

5. Security Considerations

   XMPP JIDs are often personal identifiers enabling electronic
   communication and have similar considerations to email addresses.
   This schema enables publishing of this information in LDAP
   directories, which may be corporate or public services. Care should
   be taken to only publish JID information that is acceptable both to
   be linked to the LDAP object and to be made accessible to all LDAP
   users. The general LDAP security considerations specified in
   [RFC4510] also apply.

6. Normative References

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