LDAP Schema for supporting XMPP in White Pages
draft-kille-ldap-xmpp-schema-08

Abstract

   The Extensible Messaging and Presence Protocol (XMPP) identifies
   users by use of JID (Jabber IDs). Lightweight Directory Access
   Protocol (LDAP) enables provision of a white pages service with
   schema relating to users and support for internet protocols. This
   specification defines 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 JID (Jabber IDs). Lightweight Directory
Access Protocol (LDAP) [RFC4510] enables provision of a white pages
service with schema relating to users and support for internet
protocols defined in [RFC4519]. This specification defines 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
(JIDObject).

2. Conventions Used in This Document

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 [RFC2119].

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 (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, to enable configuring

an object that is allowed to have an associated JID but does not
currently have one.

```
     ( TBA.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 representing a specific XMPP client used by the human user and
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: 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, for convenience for users and
administrators as well as implementers. As this syntax and matching
rules differs from [RFC7622] false positive and false negative can
possibly occur. This is not anticipated to cause operational issues
(based on implementation experience with similar syntax/matching rule
mismatches).

```
     ( TBA.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 are requested in the LDAP Registry
<https://www.iana.org/assignments/ldap-parameters/ldap-
parameters.xhtml> in line with BP 64 [RFC4520]. This will lead to

assignment of the two Object Identifiers, referenced as TBA.1 and
TBA.2 in this draft.

Object Identifier Registration

        Subject: Request for LDAP OID Registration (Internet
          Directory Numbers)
        Person & email address to contact for further
          information: S. Kille <steve.kille@isode.com>
        Specification: This document
        Author/Change Controller: IESG
        Comments: Identifies the XMPP schema elements assigned

In the following two registrations, TBA is replaced with the OID
assigned in the preceding registration.

NOTE TO RFC EDITOR: TBA in this document should be replaced with the
IANA assigned OID.

'JIDObject' Descriptor Registration

        Subject: Request for LDAP Descriptor Registration (Object
          Identifier Descriptors)
        Descriptor (short name): JIDObject
        Object Identifier: TBD.1
        Person & email address to contact for further
          information: S. Kille <steve.kille@isode.com>
        Usage: Object Class
        Specification: this document
        Author/Change Controller: IESG

'jid' Descriptor Registration

        Subject: Request for LDAP Descriptor Registration (Object
          Identifier Descriptors)
        Descriptor (short name): jid
        Object Identifier: TBD.2
        Person & email address to contact for further
          information: S. Kille <steve.kille@isode.com>
        Usage: Attribute Type
        Specification: this document
        Author/Change Controller: IESG

5. Security Considerations

XMPP JIDs are often personal identifiers enabling electronic
communication, with 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 which is acceptable to be linked to the
LDAP object and be made accessible to all LDAP users. The general
LDAP Security Considerations specified in [RFC4510] also apply.

6. Normative References

[RFC2119]   Bradner, S., "Key words for use in RFCs to Indicate
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[RFC4510]   Zeilenga, K., Ed., "Lightweight Directory Access Protocol
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[RFC4517]   Legg, S., Ed., "Lightweight Directory Access Protocol
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[RFC4519]   Sciberras, A., Ed., "Lightweight Directory Access Protocol
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[RFC4520]   Zeilenga, K., "Internet Assigned Numbers Authority (IANA)
            Considerations for the Lightweight Directory Access
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[RFC6120]   Saint-Andre, P., "Extensible Messaging and Presence
            Protocol (XMPP): Core", RFC 6120, DOI 10.17487/RFC6120,
            March 2011, <https://www.rfc-editor.org/info/rfc6120>.

[RFC7622]   Saint-Andre, P., "Extensible Messaging and Presence
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Appendix A. Acknowledgements

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