This specification describe a method that allow a user to share a list of nodes on which it is Pubsub registered.
Legal

Copyright

This XMPP Extension Protocol is copyright © 1999 – 2020 by the XMPP Standards Foundation (XSF).

Permissions

Permission is hereby granted, free of charge, to any person obtaining a copy of this specification (the "Specification"), to make use of the Specification without restriction, including without limitation the rights to implement the Specification in a software program, deploy the Specification in a network service, and copy, modify, merge, publish, translate, distribute, sublicense, or sell copies of the Specification, and to permit persons to whom the Specification is furnished to do so, subject to the condition that the foregoing copyright notice and this permission notice shall be included in all copies or substantial portions of the Specification. Unless separate permission is granted, modified works that are redistributed shall not contain misleading information regarding the authors, title, number, or publisher of the Specification, and shall not claim endorsement of the modified works by the authors, any organization or project to which the authors belong, or the XMPP Standards Foundation.

Warranty

## NOTE WELL: This Specification is provided on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. ##

Liability

In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall the XMPP Standards Foundation or any author of this Specification be liable for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising from, out of, or in connection with the Specification or the implementation, deployment, or other use of the Specification (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if the XMPP Standards Foundation or such author has been advised of the possibility of such damages.

Conformance

This XMPP Extension Protocol has been contributed in full conformance with the XSF’s Intellectual Property Rights Policy (a copy of which can be found at <https://xmpp.org/about/xsf/ipr-policy> or obtained by writing to XMPP Standards Foundation, P.O. Box 787, Parker, CO 80134 USA).
## Contents

1. Introduction .......................................................... 1

2. Protocol ............................................................... 1
   2.1 Item ID generation method ....................................... 1
      2.1.1 Generation Example ........................................... 2

3. Requirements .......................................................... 2

4. Glossary .................................................................. 2

5. Use Cases ............................................................... 2
   5.1 Requesting the list of subscription ............................... 2
   5.2 Adding a subscription to the list ................................. 3
   5.3 Removing a subscription from the list ............................. 3
   5.4 Modifying a subscription of the list ............................... 3

6. Internationalization Considerations ............................... 4

7. Security Considerations ............................................... 4

8. IANA Considerations .................................................. 4

9. XMPP Registrar Considerations ...................................... 4

10. XML Schema ........................................................... 4
1 Introduction

Publish-Subscribe (XEP-0060) \(^1\) nodes are commonly used by XMPP users to subscribe to news feeds. This document describe a way, for them, to share some of the nodes to which they have subscribed with other users.

The list of Publish-Subscribe (XEP-0060) \(^2\) subscribed nodes is stored on a classic Personal Eventing Protocol (XEP-0163) \(^3\) node qualified by the 'urn:xmpp:subscription' namespace. If an entity wishes to make pubsub subscriptions publicly available then the entity MAY publish them on this node. The entity SHOULD ensure that this information is kept up to date.

2 Protocol

Information about the subscribed node is provided by the user client. The subscription container is defined as a classic <subscription/> element with these specific constraints:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>attribute</td>
<td>Any server’s address</td>
<td>REQUIRED</td>
</tr>
<tr>
<td>node</td>
<td>attribute</td>
<td></td>
<td>REQUIRED</td>
</tr>
<tr>
<td>id</td>
<td>node</td>
<td></td>
<td>RECOMMENDED</td>
</tr>
<tr>
<td>title</td>
<td>node</td>
<td></td>
<td>OPTIONAL</td>
</tr>
</tbody>
</table>

2.1 Item ID generation method

The aim of this XEP is to handle a list of subscriptions. To simplify the management of this list the ID of the Publish-Subscribe (XEP-0060) \(^4\) items MUST be generated according to the following method:

1. Initialize an empty string S
2. Append the name of the server, followed by the '<' character
3. Append the name of the node, followed by the '<' character
4. Append the jid of the current account
5. Compute the ID by hashing the S string using the SHA1 algorithm

2.1.1 Generation Example

1. \( S = '' \)
2. \( S = 'pubsub.montague.lit<' \)
3. \( S = 'pubsub.montague.lit-party' \)
4. \( id = de6c6772ff43d9a604ea78e51ce28b63ab8692eb \)

3 Requirements

The motivations for this document are to:

- Allow Jabber user’s to share their Publish-Subscribe (XEP-0060) \(^5\) subscriptions
- Add a new way to discover Publish-Subscribe (XEP-0060) \(^6\) nodes

4 Glossary

**Personnal Eventing** A simplified subset of Publish-Subscribe for use in the context of instant messaging and presence applications, whereby each IM user's JID is a virtual pubsub service; for details, see Personal Eventing Protocol.

5 Use Cases

5.1 Requesting the list of subscription

Listing 1: Requests the list of subscriptions

```xml
<iq type='get'
    from='romeo@montague.lit'
    to='pubsub.shakespeare.lit'
    id='items1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <items node='urn:xmpp:pubsub:subscription'/>
  </pubsub>
</iq>
```

5.2 Adding a subscription to the list

Listing 2: Add a subscription to the list

```
<iq type="set" from="romeo@montague.lit" id="sub123">
  <pubsub xmlns="http://jabber.org/protocol/pubsub">
    <publish node="urn:xmpp:pubsub:subscription">
      <item id="0bc0e76cb803b3b107aa369169d8c0d45086f844">
        <subscription xmlns="urn:xmpp:pubsub:subscription:0" server="pubsub.shakespeare.lit" node="party">
          <title>Party at the Capulets</title>
        </subscription>
      </item>
    </publish>
  </pubsub>
</iq>
```

5.3 Removing a subscription from the list

Listing 3: Remove a subscription from the list

```
<iq type='set' from='romeo@montague.lit' to='pubsub.shakespeare.lit' id='unsub1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <retract node='urn:xmpp:pubsub:subscription'>
      <item id='0bc0e76cb803b3b107aa369169d8c0d45086f844'/>
    </retract>
  </pubsub>
</iq>
```

5.4 Modifying a subscription of the list

Listing 4: Change the information of a subscription of the list

```
<iq type='set' from='romeo@montague.lit' to='pubsub.shakespeare.lit' id='unsub1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='urn:xmpp:pubsub:subscription'>
      <item id='0bc0e76cb803b3b107aa369169d8c0d45086f844'>
        <subscription xmlns='urn:xmpp:pubsub:subscription:0' server='pubsub.shakespeare.lit' node='party'>
          <title>Party at the Capulets [canceled !]</title>
        </subscription>
      </item>
    </publish>
  </pubsub>
</iq>
```
6 Internationalization Considerations

The title element of a `<subscription/>` item SHOULD be in the same language as the contents of the node in question.

7 Security Considerations

The publication of user tune information is not known to introduce any new security considerations above and beyond those defined in XEP-0060: Publish-Subscribe.

8 IANA Considerations

This document requires no interaction with the Internet Assigned Numbers Authority (IANA) 7.

9 XMPP Registrar Considerations

The XMPP Registrar 8 is requested to issue an initial namespace of "urn:xmpp:pubsub:subscription".

10 XML Schema

REQUIRED for protocol specifications.

---

7 The Internet Assigned Numbers Authority (IANA) is the central coordinator for the assignment of unique parameter values for Internet protocols, such as port numbers and URI schemes. For further information, see <http://www.iana.org/>.

8 The XMPP Registrar maintains a list of reserved protocol namespaces as well as registries of parameters used in the context of XMPP extension protocols approved by the XMPP Standards Foundation. For further information, see <https://xmpp.org/registrar/>.