



# XMPP

## XEP-0330: Pubsub Subscription

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2013-06-11  
Version 0.1

Status	Type	Short Name
Deferred	Standards Track	NOT_YET_ASSIGNED

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

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## 1 Introduction

[Publish-Subscribe \(XEP-0060\)](#)<sup>1</sup> 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 \(XEP-0060\)](#)<sup>2</sup> subscribed nodes is stored on a classic [Personal Eventing Protocol \(XEP-0163\)](#)<sup>3</sup> 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 theses specific constraints :

Name	Type	Description	Support
server	attribute	Any server's address	REQUIRED
node	attribute		REQUIRED
id	node		RECOMMENDED
title	node		OPTIONAL

### 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 \(XEP-0060\)](#)<sup>4</sup> 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

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<sup>1</sup>XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

<sup>2</sup>XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

<sup>3</sup>XEP-0163: Personal Eventing Protocol <<https://xmpp.org/extensions/xep-0163.html>>.

<sup>4</sup>XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

### 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 \(XEP-0060\)](#)<sup>5</sup> subscriptions
- Add a new way to discover [Publish-Subscribe \(XEP-0060\)](#)<sup>6</sup> 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

```
<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>
```

---

<sup>5</sup>XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

<sup>6</sup>XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

## 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>
```

```
</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 \(IANA\)](#)<sup>7</sup>.

## 9 XMPP Registrar Considerations

The [XMPP Registrar](#)<sup>8</sup> is requested to issue an initial namespace of "urn:xmpp:pubsub:subscription".

## 10 XML Schema

REQUIRED for protocol specifications.

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<sup>7</sup>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/>.

<sup>8</sup>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/>.