



# XMPP

## XEP-0057: Extended Roster

Alexey Shchepin

<mailto:alexey@sevcom.net>

<xmpp:aleksey@jabber.ru>

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This document defines a way to handle extended roster items.

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## 1 Introduction

The main purpose of this document is to make roster not only a "contact list", but also a "list of useful items". This means that the user has the ability to store not only users' JIDs, but any JID that he wants to quickly access with more information than just the name, subscription and roster groups.

## 2 What we need to store

All information, that can be stored for each item can be divided into three categories:

1. Information necessary only for server-side. E.g. we can have a server module that can process "visibility" to each user in roster (by sending custom presence to this user automatically, without special client-side support of this).
2. Information, necessary only for client-side. E.g. user description of this item.
3. Information for both sides. This is at least the JID, category and type.

## 3 Where to store

Using jabber:iq:private as in [Bookmark Storage \(XEP-0048\)](#)<sup>1</sup> for storing this information has one big problem: it is hard to maintain roster data in two separate places. When a client is online, then the client application can handle jabber:iq:roster changes and make similar changes in private storage, but when the user is online with a few different resources, or when he is offline, then making the information consistent is very hard task (a roster can be changed when user offline, e.g. if someone is making an account transfer).

But we have a place where this problem does not exist: jabber:iq:roster. We can store it in `<item/>` subtags. Existing server implementation MUST NOT remove `<x/>` tags from it. In this case all information always relates to its JID and disappears when this JID removed.

## 4 How to store

### 4.1 General information

JID, category and type are stored as attributes of `<item/>` tag. Categories and types are the same as in disco. Official categories and types associated with disco are administered by the

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<sup>1</sup>XEP-0048: Bookmark Storage <https://xmpp.org/extensions/xep-0048.html>.

XMPP Registrar<sup>2</sup> see <<https://xmpp.org/registrar/disco-categories.html>>.

```
<item jid="jdev@conference.jabber.org"
      category="conference"
      type="text">
```

## 4.2 Server-side information

This information is implementation-dependent, so to provide flexibility for it, the jabber:x:data namespace defined in [Data Forms \(XEP-0004\)](#)<sup>3</sup> must be used. The client can set these parameters by setting this item with this form with type='submit'.

```
<item jid="romeo@montague.net"
      name="Romeo"
      subscription="both">
  <x xmlns='jabber:x:data' type='form'>
    <field type='list-single' label='Visibility' var='visibility'>
      <value>visible</value>
      <option label='Normal'>
        <value>normal</value>
      </option>
      <option label='Always_visible'>
        <value>visible</value>
      </option>
      <option label='Always_invisible'>
        <value>invisible</value>
      </option>
    </field>
  </x>
  ...
</item>
```

## 4.3 Client-side information

This information stored in <x/> tag with namespace jabber:x:roster:item. Following subtags can be used for different types of JIDs, however client applications can make this set bigger, to implement more functions.

<sup>2</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/>>.

<sup>3</sup>XEP-0004: Data Forms <<https://xmpp.org/extensions/xep-0004.html>>.

### 4.3.1 Generic JIDs

For all categories and types of JID allowed following subtag:

- **desc:** A description or note describing the JID.

### 4.3.2 Client JIDs

For all JIDs with category=client allowed following subtags:

- **always-visible, always-invisible:** The client should send custom presence to this JID to be always visible or invisible to it.

### 4.3.3 Conference JIDs

For all JIDs with category=conference allowed following subtags:

- **nick:** The nickname to be used when joining the room. If few such tags in one item, then first is used by default, and others used if first not available.
- **password:** The password to be used to joining the room.
- **auto-join:** The client should automatically join this room once the user has been authenticated, and the roster have been fetched.

```
<x xmlns="jabber:x:roster:item">
  <always-visible/>
  <desc>My old good friend</desc>
</x>
```

## 4.4 Complete example

```
<iq id="roster_1" type="result">
  <query xmlns="jabber:iq:roster">
    <item jid="romeo@montague.net"
      name="Romeo"
      category="user"
      type="client"
      subscription="both">
      <x xmlns="jabber:x:roster:item">
        <always-visible/>
        <desc>bla bla bla</desc>
      </x>
      <x xmlns='jabber:x:data' type='form'>
```

```
<field type='list-single' label='Visibility' var='visibility'>
  <value>visible</value>
  <option label='Normal'>
    <value>normal</value>
  </option>
  <option label='Always_visible'>
    <value>visible</value>
  </option>
  <option label='Always_invisible'>
    <value>invisible</value>
  </option>
</field>
</x>
</item>
<item jid="jdev@conference.jabber.org"
      name="Developers_Zone"
      category="conference"
      type="text"
      subscription="none">
  <x xmlns="jabber:x:roster:item">
    <password>bigsecret</password>
    <auto-join/>
    <nick>aleksey</nick>
    <nick>alexey</nick>
    <desc>Jabber developers talks</desc>
  </x>
</item>
</query>
</iq>
```