



XMPP

XEP-0411: Bookmarks Conversion

Daniel Gultsch

<mailto:daniel@gultsch.de>

<xmpp:daniel@gultsch.de>

2021-10-19

Version 1.1.0

Status	Type	Short Name
Deprecated	Standards Track	bookmarks-conversion

This specification describes a method to migrate to PEP based bookmarks without losing compatibility with client that still use Private XML.

Legal

Copyright

This XMPP Extension Protocol is copyright © 1999 – 2024 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	Discovery	1
3	Conversion	2
4	Implementation Notes	2
5	Security Considerations	2
6	IANA Considerations	2
7	XMPP Registrar Considerations	2
8	XML Schema	3
9	Acknowledgements	3

1 Introduction

[Bookmark Storage \(XEP-0048\)](#)¹ has a long time ago moved from [Private XML Storage \(XEP-0049\)](#)² as a storage backend to using [Personal Eventing Protocol \(XEP-0163\)](#)³ instead. However lots of implementations are still using Private XML which creates a bit of a chicken and egg problem since clients who want to use the more efficient PEP method would either have to support both and synchronize them properly or render themselves incompatible with other clients. An easy way out of that conundrum is to have the server do the conversion for us.

This XEP defines a method to convert between the different storage backends of XEP-0048 and is not influenced by the existence of [PEP Native Bookmarks \(XEP-0402\)](#)⁴. Bookmarks 2 defines its own conversion mechanism but the adoption of Bookmarks 2 - at the time of writing this XEP - is questionable.

2 Discovery

The conversion is transparent to the publishing entity. However an entity might want to discover if a service will be performing the conversion and solely rely on PEP to access bookmarks without segregating clients that only support Private XML.

The service MUST include a [Service Discovery \(XEP-0030\)](#)⁵ feature of "urn:xmpp:bookmarks-conversion:0" on the account.

Listing 1: Client sends service discovery request to own account

```
<iq from='romeo@montague.tld/garden'
  id='01'
  type='get'
  to='remeo@montague.tld'>
  <query xmlns='http://jabber.org/protocol/disco#info' />
</iq>
```

Listing 2: Server includes feature namespace in response

```
<iq from='romeo@montague.tld'
  id='01'
  type='result'
  to='romeo@montague.tld/garden'>
  <query xmlns='http://jabber.org/protocol/disco#info'>
    <feature var='urn:xmpp:bookmarks-conversion:0' />
  </query>
```

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

²XEP-0049: Private XML Storage <<https://xmpp.org/extensions/xep-0049.html>>.

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

⁴XEP-0402: PEP Native Bookmarks <<https://xmpp.org/extensions/xep-0402.html>>.

⁵XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

</iq>

3 Conversion

Modern clients are expected to use PEP (**XEP-0163**) as interface to upload and retrieve their bookmarks and not explicitly request bookmarks from private XML anymore. Thus a service **MUST** support conversion from PEP to Private XML and vice versa. Whether PEP and Private XML are fed from the same data source or if they get copied over when ever one of them gets written is out of scope of this document.

When a legacy client modifies bookmarks over Private XML the service **MUST** send out notification messages to all subscribers of the 'storage:bookmarks' node.

4 Implementation Notes

For server implementations where the data is just copied over the server should make sure that the data gets copied from Private XML to PEP before the user logs in for the first time. Otherwise it won't generate a PEP notification and clients that only rely on PEP will not be aware of any preexisting bookmarks.

5 Security Considerations

PEP nodes can have an access model other than 'whitelist'. When copying data over from Private XML Storage to PEP the service **MUST** make that the user is the only one who has access to that node. This can happen by either changing the access model accordingly or not doing the conversion.

6 IANA Considerations

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

7 XMPP Registrar Considerations

This specification defines the following XML namespace:

- urn:xmpp:bookmarks-conversion:0

8 XML Schema

tbd

9 Acknowledgements

Special thanks to Emmanuel Gil Peyrot who created a proof of concept module for Prosody.