XEP-0195: User Browsing

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Deferred	Standards Track	NOT_YET_ASSIGNED

This document defines an XMPP protocol extension for communicating information about the web pages a user visits.

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Contents

1 Introduction

Publish-Subscribe (XEP-0060) [1] and Personal Eventing Protocol (XEP-0163) [2] can be used to publish a wide variety of "extended presence" information about users. This document specifies an extended presence payload format that communicates information about the web pages a user visits. This information may be of interest to a user's contacts and can also be used in social networking applications (e.g., co-browsing and web swarms).

2 Protocol

2.1 Container Element and Child Elements

Information about web pages is provided by the user (or automated integration with browsers or other systems) and is propagated on the network by the user's client. The information container for web page data is a <page/> element that is qualified by the 'urn:xmpp:browsing:0' namespace (see Protocol Namespaces regarding issuance of one or more permanent namespaces). The web page information itself is provided as the XML character data of the following children of the <page/> element:

Element	Description	Example	Datatype	Inclusion
description	The value of the "description" META tag	The weblog of Peter Saint-Andre	xs:string	OPTIONAL
keywords	The value of the "keywords" META tag	stpeter, Peter Saint-Andre, weblog, jabber, xmpp	xs:string	OPTIONAL
title	The value of the <title/> element	one small voice	xs:string	OPTIONAL
uri	The URI of the page (usually but not necessarily an HTTP URL)	https://stpeter.im/	xs:anyURI	REQUIRED

NOTE: The datatypes specified above are defined in XML Schema Part 2 [3].

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

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

[3]XML Schema Part 2: Datatypes <http://www.w3.org/TR/xmlschema11-2/>.

2.2 Transport Mechanism

When a user visits a web page, its client may publish that fact to a PEP node whose NodeID is "urn:xmpp:browsing:0" (see Protocol Namespaces regarding issuance of one or more permanent namespaces) or to a generic pubsub node. Because browsing information is not pure presence information and can change independently of the user's availability, it SHOULD NOT be provided as an extension to the <presence/> stanza type.

Listing 1: User Publishes Browsing Information

```
<iq type='set' from='stpeter@jabber.org/work' id='browsing1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='urn:xmpp:browsing:0'>
      <item id='da6abe63d1e5ed45a6de466732abff72e6fccb93'>
        <page xmlns='urn:xmpp:browsing:0'>
          <uri>https://stpeter.im/</uri>
        </page>
      </item>
    </publish>
  </pubsub>
</iq>
```

The browsing information is then delivered to all subscribers:

Listing 2: Browsing Information is Delivered to All Subscribers

```
<message from='stpeter@jabber.org' to='maineboy@jabber.org'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='urn:xmpp:browsing:0'>
      <item id='da6abe63d1e5ed45a6de466732abff72e6fccb93'>
        <page xmlns='urn:xmpp:browsing:0'>
          <uri>https://stpeter.im/</uri>
        </page>
      </item>
    </items>
  </event>
</message>
```

When the user stops browsing the page (e.g., by closing the browser window or tab), the user's client SHOULD send an empty <page/> element with the same ItemID:

Listing 3: User Publishes Stop Information

```
<iq type='set' from='stpeter@jabber.org/work' id='browsing2'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='urn:xmpp:browsing:0'>
      <item id='da6abe63d1e5ed45a6de466732abff72e6fccb93'>
        <page xmlns='urn:xmpp:browsing:0'/>
```

```
        </item>
      </publish>
    </pubsub>
</iq>
```

Listing 4: Stop Information is Delivered to All Subscribers

```
<message from='stpeter@jabber.org' to='maineboy@jabber.org'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='urn:xmpp:browsing:0'>
      <item id='da6abe63d1e5ed45a6de466732abff72e6fccb93'>
        <page xmlns='urn:xmpp:browsing:0'/>
      </item>
    </items>
  </event>
</message>
```

3 Security Considerations

The web pages that a user visits may be sensitive. A client MUST provide a way for a user to configure which pages or types of pages will not be published (e.g., via user preferences).

4 IANA Considerations

This document requires no interaction with the Internet Assigned Numbers Authority (IANA) [4].

5 XMPP Registrar Considerations

5.1 Protocol Namespaces

This specification defines the following XML namespace:

- urn:xmpp:browsing:0

Upon advancement of this specification from a status of Experimental to a status of Draft, the XMPP Registrar [5] shall add the foregoing namespace to the registry located at

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[4]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/>.

[5]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/>.

<https://xmpp.org/registrar/namespaces.html>, as described in Section 4 of XMPP Registrar Function (XEP-0053) [6].

5.2 Namespace Versioning

If the protocol defined in this specification undergoes a revision that is not fully backwards-compatible with an older version, the XMPP Registrar shall increment the protocol version number found at the end of the XML namespaces defined herein, as described in Section 4 of XEP-0053.

6 XML Schema

```xml
<?xml version='1.0' encoding='UTF-8'?>

<xs:schema
    xmlns:xs='http://www.w3.org/2001/XMLSchema'
    targetNamespace='urn:xmpp:browsing:0'
    xmlns='urn:xmpp:browsing:0'
    elementFormDefault='qualified'>

  <xs:element name='page'>
    <xs:complexType>
      <xs:sequence minOccurs='0'>
        <xs:element name='description' type='xs:string' minOccurs='0'/
          >
        <xs:element name='keywords' type='xs:string' minOccurs='0'/>
        <xs:element name='title' type='xs:string' minOccurs='0'/>
        <xs:element name='uri' type='xs:anyURI'/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>

</xs:schema>
```

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[6]XEP-0053: XMPP Registrar Function <https://xmpp.org/extensions/xep-0053.html>.