



XMPP

XEP-0112: User Physical Location

Peter Saint-Andre
<mailto:peter@andyet.net>
<xmpp:stpeter@stpeter.im>
<https://stpeter.im/>

2004-10-12
Version 1.0

Status	Type	Short Name
Obsolete	Standards Track	physloc

This document defines a protocol for communicating information about the current physical location of a Jabber entity. NOTE WELL: The protocol defined herein has been folded into XEP-0080.

Legal

Copyright

This XMPP Extension Protocol is copyright © 1999 – 2017 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
3	Usage	2
4	Mapping to Other Formats	3
5	Internationalization Considerations	6
6	Security Considerations	6
7	IANA Considerations	7
8	XMPP Registrar Considerations	7
	8.1 Protocol Namespaces	7
9	XML Schema	7

1 Introduction

NOTE WELL: The protocol defined herein has been folded into [User Geolocation \(XEP-0080\)](#)¹.

This document defines an extension mechanism for capturing "extended presence" information about a user's current physical location. The information structures defined herein are intended to provide a format for describing a location or address that may change fairly frequently (e.g., one's location on a campus or in a large building) in situations where the user or application does not possess, or does not wish to communicate, detailed latitude/longitude data of the type defined in XEP-0080.

2 Protocol

Information about the user's location is provided by the user and propagated on the network by the user's client. The information is structured by means of an <physloc/> element that is qualified by the 'http://jabber.org/protocol/physloc' namespace. The location information itself is provided as the XML character data of the following children of the <physloc/> element:

Element	Description	Example
<country/>	The nation where the user is located	USA
<region/>	An administrative region of the nation, such as a state or province	New York
<locality/>	A locality within the administrative region, such as a town or city	New York City
<area/>	A named area such as a campus or neighborhood	Central Park
<street/>	A thoroughfare within the locality, or a crossing of two thoroughfares	34th and Broadway
<building/>	A specific building on a street or in an area	The Empire State Building
<floor/>	A particular floor in a building	102
<room/>	A particular room in a building	Observatory
<postalcode/>	A code used for postal delivery	10027
<text/>	A catch-all element that captures any other information about the user's location	Northwest corner of the lobby

¹XEP-0080: User Geolocation <<https://xmpp.org/extensions/xep-0080.html>>.

3 Usage

The <physloc/> information SHOULD be communicated by means of [Publish-Subscribe \(XEP-0060\)](#)². Because physical location information is not pure presence information and can change independently of the user's availability, it SHOULD NOT be provided as an extension to <presence/>.

Listing 1: User Publishes Address

```
<iq type='set'
  from='stpeter@jabber.org/laptop'
  to='pubsub.jabber.org'
  id='publish1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='generic/stpeter-loc'>
      <item id='current'>
        <physloc xmlns='http://jabber.org/protocol/physloc'
          xml:lang='en'>
          <country>Austria</country>
          <locality>Vienna</locality>
          <building>Vienna International Centre</building>
          <text>At IETF 57</text>
        </physloc>
      </item>
    </publish>
  </pubsub>
</iq>
```

The location information is then delivered to all subscribers:

Listing 2: Address is Delivered to All Subscribers

```
<message
  from='pubsub.jabber.org'
  to='jer@jabber.org/silver'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='generic/stpeter-physloc'>
      <item id='current'>
        <physloc xmlns='http://jabber.org/protocol/physloc'
          xml:lang='en'>
          <country>Austria</country>
          <locality>Vienna</locality>
          <building>Vienna International Centre</building>
          <text>At IETF 57</text>
        </physloc>
      </item>
    </items>
  </event>
</message>
```

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

```

    </event>
</message>
.
.
.

```

As mentioned in XEP-0060, the stanza containing the event notification or payload MAY also include 'replyto' data (as specified by the [Extended Stanza Addressing \(XEP-0033\)](#)³ protocol) to provide an explicit association between the published data and the user:

Listing 3: Event notification with extended stanza addressing

```

<message
  from='pubsub.jabber.org'
  to='jer@jabber.org/silver'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='generic/stpeter-physloc'>
      <item id='current'>
        <physloc xmlns='http://jabber.org/protocol/physloc'
          xml:lang='en'>
          <country>Austria</country>
          <locality>Vienna</locality>
          <building>Vienna International Centre</building>
          <text>At IETF 57</text>
        </physloc>
      </item>
    </items>
  </event>
  <addresses xmlns='http://jabber.org/protocol/address'>
    <address type='replyto' jid='stpeter@jabber.org' />
  </addresses>
</message>

```

4 Mapping to Other Formats

There are many XML data formats for physical location or address information. It is beyond the scope of this document to provide a mapping from the extension defined herein to every such format. However, it would be valuable to provide a mapping from the Jabber/XMPP format to the formats used in other presence or extended presence protocols. The two main protocols of interest are:

1. The Wireless Village (now "IMPS") specifications for mobile instant messaging; these specifications define a presence attribute for address information as encapsulated in

³XEP-0033: Extended Stanza Addressing <<https://xmpp.org/extensions/xep-0033.html>>.

the IMPS "Address" element ⁴.

2. The SIP-based SIMPLE specifications; in particular, the IETF's GEOPRIV Working Group has defined an extension to the IETF's [Presence Information Data Format \(PIDF\)](#) ⁵ for location information, as specified in [RFC 4119](#) ⁶ (also known as "PIDF-LO").

The following table also maps the format defined herein to the vCard XML format specified in [vcard-temp \(XEP-0054\)](#) ⁷.

Jabber/XMPP	Wireless Village / IMPS	SIMPLE (PIDF-LO)	vCard XML
<country/>	<Country/>	<country/>	<CTRY/> As noted in XEP-0054, the XML vCard format defined in draft-dawson-vcard-xml-dtd-01 specified a <COUNTRY/> element rather than a <CTRY/> element; refer to XEP-0054 for details.
<region/>	--	<A1/> and/or <A2/>	<REGION/>
<locality/>	<City/>	<A3/>	<LOCALITY/>
<area/>	<NamedArea/>	<A4/> and/or <A5/>	--

⁴The Wireless Village Initiative: Presence Attributes v1.1 (WV-029); for further information, visit <http://www.openmobilealliance.org/tech/affiliates/wv/wvindex.html>.

⁵RFC 3863: Presence Information Data Format (PIDF) <http://tools.ietf.org/html/rfc3863>.

⁶RFC 4119: A Presence-based GEOPRIV Location Object Format <http://tools.ietf.org/html/rfc4119>.

⁷XEP-0054: vcard-temp <https://xmpp.org/extensions/xep-0054.html>.

Jabber/XMPP	Wireless Village / IMPS	SIMPLE (PIDF-LO)	vCard XML
<street/>	The IMPS specification also enables one to define an intersection (e.g., "Broadway and 34th Street") as the combination of a <Crossing1/> element (e.g., "Broadway") and a <Crossing2/> element (e.g., "34th Street"). To map from IMPS to Jabber, an application SHOULD map such a combination to one Jabber/XMPP <street/> element.	The PIDF-LO format provides information elements for much more granular control over a traditional street address; in PIDF-LO the <A6/> element is the street name only, and further information is provided in distinct elements for a leading street direction (e.g., "N"), trailing street suffix (e.g., "SW"), street suffix (e.g., "Avenue"), house number (e.g., "909"), and house number suffix (e.g., "1/2"). To map from PIDF-LO to Jabber, an application SHOULD construct the complete street address from the PIDF-LO elements (<A6/>, <PRD/>, <POD/>, <STS/>, <HNO/>, and <HNS/>) and map the result to one Jabber/XMPP <street/> element.	<STREET/>
<building/>	<Building/>	<LMK/>	--
<floor/>	--	<FLR/>	--
<room/>	--	--	--
<postalcode/>	--	<PC/>	<PCODE/>
<text/>	<FreeTextLocation/>	<LOC/>	<EXTADR/>

Jabber/XMPP	Wireless Village / IMPS	SIMPLE (PIDF-LO)	vCard XML
--	<p>This element provides accuracy in meters. The geolocation protocol defined in XEP-0080 specifies such an element for Jabber/XMPP, which SHOULD be used when mapping from IMPS to Jabber.</p>	--	--
--	--	<p><NAM/> This element provides a name for the location, e.g., a certain store in a building. This SHOULD be mapped to the Jabber/XMPP <text/> element.</p>	--

5 Internationalization Considerations

Because the character data contained in most <physloc/> child elements is intended to be readable by humans, the <physloc/> element SHOULD possess an 'xml:lang' attribute specifying the natural language of such character data.

6 Security Considerations

It is imperative to control access to location information, at least by default. Imagine that a stalker got unauthorized access to this information, with enough accuracy and timeliness to be able to find the target person. This scenario could lead to loss of life, so please take access control checks seriously. A user SHOULD take care in approving subscribers and in characterizing his or her current physical location.

7 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)⁸.

8 XMPP Registrar Considerations

8.1 Protocol Namespaces

The [XMPP Registrar](#)⁹ includes 'http://jabber.org/protocol/physloc' in its registry of protocol namespaces, but the namespace is deprecated.

9 XML Schema

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

<xs:schema
  xmlns:xs='http://www.w3.org/2001/XMLSchema'
  targetNamespace='http://jabber.org/protocol/physloc'
  xmlns='http://jabber.org/protocol/physloc'
  elementFormDefault='qualified'>

  <xs:element name='physloc'>
    <xs:complexType>
      <xs:sequence>
        <xs:element name='country' minOccurs='0' type='xs:string'/>
        <xs:element name='region' minOccurs='0' type='xs:string'/>
        <xs:element name='locality' minOccurs='0' type='xs:string'/>
        <xs:element name='area' minOccurs='0' type='xs:string'/>
        <xs:element name='street' minOccurs='0' type='xs:string'/>
        <xs:element name='building' minOccurs='0' type='xs:string'/>
        <xs:element name='floor' minOccurs='0' type='xs:string'/>
        <xs:element name='room' minOccurs='0' type='xs:string'/>
        <xs:element name='postalcode' minOccurs='0' type='xs:string'/>
        <xs:element name='text' minOccurs='0' type='xs:string'/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
```

⁸The 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/>.

⁹The 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/>.

```
</xs:schema>
```