



XMPP

XEP-0367: Message Attaching

Sam Whited

<mailto:sam@samwhited.com>
<xmpp:sam@samwhited.com>
<https://blog.samwhited.com/>

Craig Petchell

<mailto:cpatchell@atlassian.com>

Matthew Wild

<mailto:mwild1@gmail.com>
<xmpp:me@matthewwild.co.uk>

2018-08-18

Version 0.3

Status	Type	Short Name
Deferred	Standards Track	message-attaching

This specification defines a method for indicating that a message contains content which describes an earlier message in the conversation and should be grouped with the earlier message.

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	Discovering support	1
3	Usage	1
4	Business Rules	2
4.1	Using the correct ID	2
4.2	Display of attached messages	2
4.3	General	3
5	Security Considerations	3
6	IANA Considerations	3
7	XMPP Registrar Considerations	3
8	XML Schema	4

1 Introduction

Many messaging applications send special messages which include more information about a previous message. For example, when sending a link the service may display the description or an image off the page, or users may respond to a message with a "sticker" or an "emotion" which they wish to display alongside the message, even though the conversation has moved on.

This specification defines a way by which one can indicate that a message is logically (and visibly) "attached" to an earlier message in the conversation.

2 Discovering support

If a client implements message attaching, it MUST specify the 'urn:xmpp:message-attaching:1' feature in its service discovery information features as specified in [Service Discovery \(XEP-0030\)](#)¹ and the Entity Capabilities profile specified in [Entity Capabilities \(XEP-0115\)](#)².

Listing 1: Client requests information about a chat partner's client

```
<iq type='get'
  from='alonso@naples.lit/ship'
  id='miuARo9V'>
  <query xmlns='http://jabber.org/protocol/disco#info' />
</iq>
```

Listing 2: Partner's client advertises support for attaching

```
<iq type='result'
  to='alonso@naples.lit/ship'
  from='naples.lit'
  id='miuARo9V'>
  <query xmlns='http://jabber.org/protocol/disco#info'>...

  <feature var='urn:xmpp:message-attaching:1' />...

  </query>
</iq>
```

3 Usage

Messages that are attached to other messages MUST contain an <attach-to/> element qualified by the 'urn:xmpp:message-attaching:1' namespace and with an 'id' attribute set to the ID of

¹XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

²XEP-0115: Entity Capabilities <<https://xmpp.org/extensions/xep-0115.html>>.

the message that we want to attach to (important note: the correct ID to use depends on the context, see the business rules below). Messages MAY be attached to any other message, including those sent by other clients, but clients MAY choose to ignore the attach-to directive and display the message normally.

Listing 3: User attaches a message

```
<message to='antonio@milan.lit/ship' from='prospero@milan.lit/island'
  id='RgEGnjqy'>
  <body>storm.png</body>
  <attach-to id='SD24VCzSYQ' xmlns='urn:xmpp:message-attaching:1' />
</message>
```

Note that indicating that a message should be "attached" to an earlier message in the conversation is merely a suggestion to the client to display the message next to or below the old message.

4 Business Rules

4.1 Using the correct ID

For messages of type 'groupchat', the stanza's 'id' attribute MUST NOT be used for attachments. Instead, in group chat situations, the ID assigned to the stanza by the group chat itself must be used. This is discovered in a <stanza-id> element with a 'by' attribute that matches the bare JID of the group chat, as defined in [Unique and Stable Stanza IDs \(XEP-0359\)](#)³.

This implies that group chat messages without a [Unique and Stable Stanza IDs \(XEP-0359\)](#)⁴ stanza-id cannot be attached-to.

For other message types the attacher should use the 'id' from a XEP-0359 <origin-id> if present, or the value of the 'id' attribute on the <message> otherwise.

4.2 Display of attached messages

A receiving client MAY choose to show the attached message next to or below the indicated message in whatever display is used for messages or can choose to display the attachment in another way (including as a normal message, completely ignoring the attach-to element).

A receiving client SHOULD indicate that the message is an attachment, and not a part of the original message to prevent confusion.

³XEP-0359: Unique and Stable Stanza IDs <<https://xmpp.org/extensions/xep-0359.html>>.

⁴XEP-0359: Unique and Stable Stanza IDs <<https://xmpp.org/extensions/xep-0359.html>>.

4.3 General

<attach-to/> elements MUST NOT be put on any stanza type other than messages. A server may choose to strip some <attach-to/> messages based on local policy (eg. a server might have a policy that only it can create message attachments). Clients MUST send ids on messages if they support attachments. Messages MUST NOT contain more than one <attach-to/> element. Clients and servers MUST NOT include an <attach-to/> element on messages with a non-messaging payload unless they are including it on an error which may be attached to the message that caused the error to be generated.

5 Security Considerations

Clients that implement message attachments MUST display the attachments in such a way that they could not be confused with the original message and cause someone viewing the conversation to assume they were sent by the sender of the message being attached to. When matching a received attachment to the original message, clients must ensure they match using the correct ID, as described in the business rules section, e.g. within a group chat only the XEP-0359 stanza-id should be matched against. If this is not available, the message SHOULD be displayed as a normal unattached message.

6 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)⁵.

7 XMPP Registrar Considerations

This specification defines the following XML namespaces:

- urn:xmpp:message-attaching:1

The [XMPP Registrar](#)⁶ shall include the foregoing namespaces in its disco features registry as defined in [Service Discovery \(XEP-0030\)](#)⁷.

⁵The 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/>>.

⁶The 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/>>.

⁷XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

```
<var>
  <name>urn:xmpp:message-attaching:1</name>
  <desc>Indicates support for attaching one message to another.<
    /desc>
  <doc>XEP-xxxx</doc>
</var>
```

8 XML Schema

```
<?xml version='1.0' encoding='UTF-8'?>
<xs:schema
  xmlns:xs='http://www.w3.org/2001/XMLSchema'
  targetNamespace='urn:xmpp:message-attaching:1'
  xmlns='urn:xmpp:message-attaching:1'
  elementFormDefault='qualified'>
  <xs:element name='attach-to'>
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base='xs:string'>
          <xs:attribute name='id' type='xs:string' use='required' />
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
</xs:schema>
```