



# XMPP

## XEP-0367: Message Attaching

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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.

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## 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 \(XEP-0030\)](#)<sup>1</sup> and the Entity Capabilities profile specified in [Entity Capabilities \(XEP-0115\)](#)<sup>2</sup>.

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

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

<sup>2</sup>XEP-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 \(XEP-0359\)](#)<sup>3</sup>.

This implies that group chat messages without a [Unique and Stable Stanza IDs \(XEP-0359\)](#)<sup>4</sup> 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.

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

<sup>4</sup>XEP-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 \(IANA\)](#)<sup>5</sup>.

## 7 XMPP Registrar Considerations

This specification defines the following XML namespaces:

- urn:xmpp:message-attaching:1

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

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<sup>5</sup>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/>>.

<sup>6</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>7</sup>XEP-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>
```