



# XMPP

## XEP-0107: User Mood

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This specification defines a payload format for communicating information about user moods, such as whether a person is currently happy, sad, angry, or annoyed. The payload format is typically transported using the personal eventing protocol, a profile of XMPP publish-subscribe specified in XEP-0163.

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## 1 Introduction

This document defines an extension mechanism for capturing "extended presence" data about user moods.

## 2 Protocol

### 2.1 Data Format

Information about user moods is provided by the user and propagated on the network by the user's client. The information is structured via a `<mood/>` element that is qualified by the `'http://jabber.org/protocol/mood'` namespace. The mood itself is provided as the element name of a defined child element of the `<mood/>` element (e.g., `<happy/>`); one such child element is REQUIRED. The user MAY also specify a natural-language description of, or reason for, the mood in the `<text/>` child of the `<mood/>` element, which is OPTIONAL. Here is an example:

```
<mood xmlns='http://jabber.org/protocol/mood'>
  <happy/>
  <text>Yay, the mood spec has been approved!</text>
</mood>
```

In addition, an application MAY provide a more specific mood value as a properly-namespaced child of the defined element, which extension MUST be ignored if the receiving application does not understand the extended namespace. Here is an example:

```
<mood xmlns='http://jabber.org/protocol/mood'>
  <happy>
    <ecstatic xmlns='https://example.org/'/>
  </happy>
  <text>Yay, the mood spec has been approved!</text>
</mood>
```

### 2.2 Pubsub Transport

Mood information SHOULD be communicated and transported by means of the [Publish-Subscribe \(XEP-0060\)](#)<sup>1</sup> subset specified in [Personal Eventing Protocol \(XEP-0163\)](#)<sup>2</sup>. Because mood 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/>`.

---

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

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

Listing 1: User Publishes Mood

```

<iq from='juliet@capulet.lit/balcony'
  id='publish1'
  type='set'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='http://jabber.org/protocol/mood'>
      <item>
        <mood xmlns='http://jabber.org/protocol/mood'>
          <annoyed/>
          <text>curse my nurse!</text>
        </mood>
      </item>
    </publish>
  </pubsub>
</iq>

```

The mood is then delivered to all subscribers:

Listing 2: Mood is Delivered to All Subscribers

```

<message
  from='juliet@capulet.lit'
  to='romeo@montague.net'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='http://jabber.org/protocol/mood'>
      <item id='a475804a-0f9c-11dc-98a8-001143d5d5db'>
        <mood xmlns='http://jabber.org/protocol/mood'>
          <annoyed/>
          <text>curse my nurse!</text>
        </mood>
      </item>
    </items>
  </event>
</message>

```

In order to indicate that the user is no longer publishing moods, the user's client shall send an empty `<mood/>` element, which can be considered a "stop command" for user moods:

Listing 3: User Disables Publishing

```

<iq from='juliet@capulet.lit/balcony'
  id='publish1'
  type='set'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='http://jabber.org/protocol/mood'>
      <item>
        <mood xmlns='http://jabber.org/protocol/mood' />
      </item>
    </publish>

```

```

</pubsub>
</iq>

```

Listing 4: Empty Mood Information is Delivered to All Subscribers

```

<message
  from='juliet@capulet.lit'
  to='romeo@montague.net'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='http://jabber.org/protocol/mood'>
      <item id='a475804a-0f9c-11dc-98a8-001143d5d5db'>
        <mood xmlns='http://jabber.org/protocol/mood' />
      </item>
    </items>
  </event>
</message>

```

### 2.3 Including a Mood in a IM Message

A user MAY provide a mood extension in a specific IM message in order to lend a defined emotional tone to text of that particular message. (This does not override the user's more general mood and is not intended to replace PEP as a more general transport method for user moods.)

Listing 5: User Provides Mood in Message

```

<message from='romeo@montague.lit/pda'
  to='juliet@capulet.lit'
  type='chat'>
  <body>A thousand times good night!</body>
  <mood xmlns='http://jabber.org/protocol/mood'>
    <sad/>
  </mood>
</message>

```

## 3 Mood Values

There exist various theories of human affect, mood, and emotion, including those promulgated by Frijda <sup>3</sup>, Ortony et al. <sup>4</sup>, and Wierzbicka <sup>5</sup>. The taxonomy provided here mostly follows the Affective Knowledge Representation that has been defined by Lisetti <sup>6</sup> in an effort

<sup>3</sup>Frijda, N. 1986. *The Emotions*. New York: Cambridge University Press.

<sup>4</sup>Ortony, A., Clore, G., and Collins, A. 1988. *The Cognitive Structure of Emotions*. Hillsdale, NJ: Erlbaum.

<sup>5</sup>Wierzbicka, A. 1992. Defining Emotion Concepts. *Cognitive Science* 16: 539-581.

<sup>6</sup>Lisetti, C. 2002. Personality, Affect, and Emotion Taxonomy for Socially Intelligent Agents. In *Proceedings of FLAIRS 2002*. Menlo Park, CA: AAAI Press.

to harmonize the prevailing theories in this area, as well as some work by Wierzbicka on cross-cultural studies of emotion.<sup>7</sup> Furthermore, the taxonomy provided here includes a number of common physical states in addition to moods, and also takes into account the specific context of instant messaging, including work done by other standards development organizations (e.g., the Wireless Village specifications contributed to the [Open Mobile Alliance \(OMA\)](#)<sup>8</sup>) and instant messaging service providers (e.g., ICQ). Finally, lists of moods and physical states have been checked for commonality against studies of word frequency in the English language.<sup>9</sup> to remove rarely used terms.

The following mood values are defined in this taxonomy. Where available as linked below, the definitions are obtained from [Wiktionary](#).

- [afraid](#) -- Impressed with fear or apprehension; in fear; apprehensive.
- [amazed](#) -- Astonished; confounded with fear, surprise or wonder.
- [amorous](#) -- Inclined to love; having a propensity to love, or to sexual enjoyment; loving, fond, affectionate, passionate, lustful, sexual, etc.
- [angry](#) -- Displaying or feeling anger, i.e., a strong feeling of displeasure, hostility or antagonism towards someone or something, usually combined with an urge to harm.
- [annoyed](#) -- To be disturbed or irritated, especially by continued or repeated acts.
- [anxious](#) -- Full of anxiety or disquietude; greatly concerned or solicitous, esp. respecting something future or unknown; being in painful suspense.
- [aroused](#) -- To be stimulated in one's feelings, especially to be sexually stimulated.
- [ashamed](#) -- Feeling shame or guilt.
- [bored](#) -- Suffering from boredom; uninterested, without attention.

---

<sup>7</sup>Wierzbicka, A. 1999. *Emotions across Languages and Cultures*. Cambridge: Cambridge University Press.

<sup>8</sup>The Open Mobile Alliance is the focal point for the development of mobile service enabler specifications, which support the creation of interoperable end-to-end mobile services. For further information, see <http://www.openmobilealliance.org/>.

<sup>9</sup>Leech, G., Rayson, P., and Wilson, A. 2001. *Word Frequencies in Written and Spoken English*. Harlow, England: Pearson Education.

- **brave** -- Strong in the face of fear; courageous.
- **calm** -- Peaceful, quiet.
- **cautious** -- Taking care or caution; tentative.
- **cold** -- Feeling the sensation of coldness, especially to the point of discomfort.
- **confident** -- Feeling very sure of or positive about something, especially about one's own capabilities.
- **confused** -- Chaotic, jumbled or muddled.
- **contemplative** -- Feeling introspective or thoughtful.
- **contented** -- Pleased at the satisfaction of a want or desire; satisfied.
- **cranky** -- Grouchy, irritable; easily upset.
- **crazy** -- Feeling out of control; feeling overly excited or enthusiastic.
- **creative** -- Feeling original, expressive, or imaginative.
- **curious** -- Inquisitive; tending to ask questions, investigate, or explore.
- **dejected** -- Feeling sad and dispirited.
- **depressed** -- Severely despondent and unhappy.
- **disappointed** -- Defeated of expectation or hope; let down.
- **disgusted** -- Filled with disgust; irritated and out of patience.



- **dismayed** -- Feeling a sudden or complete loss of courage in the face of trouble or danger.
- **distracted** -- Having one's attention diverted; preoccupied.
- **embarrassed** -- Having a feeling of shameful discomfort.
- **envious** -- Feeling pain by the excellence or good fortune of another.
- **excited** -- Having great enthusiasm.
- **flirtatious** -- In the mood for flirting.
- **frustrated** -- Suffering from frustration; dissatisfied, agitated, or discontented because one is unable to perform an action or fulfill a desire.
- **grateful** -- Feeling appreciation or thanks.
- **grieving** -- Feeling very sad about something, especially something lost; mournful; sorrowful.
- **grumpy** -- Unhappy and irritable.
- **guilty** -- Feeling responsible for wrongdoing; feeling blameworthy.
- **happy** -- Experiencing the effect of favourable fortune; having the feeling arising from the consciousness of well-being or of enjoyment; enjoying good of any kind, as peace, tranquillity, comfort; contented; joyous.
- **hopeful** -- Having a positive feeling, belief, or expectation that something wished for can or will happen.
- **hot** -- Feeling the sensation of heat, especially to the point of discomfort.
- **humbled** -- Having or showing a modest or low estimate of one's own importance; feeling lowered in dignity or importance.

- **humiliated** -- Feeling deprived of dignity or self-respect.
- **hungry** -- Having a physical need for food.
- **hurt** -- Wounded, injured, or pained, whether physically or emotionally.
- **impressed** -- Favourably affected by something or someone.
- **in\_awe** -- Feeling amazement at something or someone; or feeling a combination of fear and reverence.
- **in\_love** -- Feeling strong affection, care, liking, or attraction..
- **indignant** -- Showing anger or indignation, especially at something unjust or wrong.
- **interested** -- Showing great attention to something or someone; having or showing interest.
- **intoxicated** -- Under the influence of alcohol; drunk.
- **invincible** -- Feeling as if one cannot be defeated, overcome or denied.
- **jealous** -- Fearful of being replaced in position or affection.
- **lonely** -- Feeling isolated, empty, or abandoned.
- **lost** -- Unable to find one's way, either physically or emotionally.
- **lucky** -- Feeling as if one will be favored by luck.
- **mean** -- Causing or intending to cause intentional harm; bearing ill will towards another; cruel; malicious.
- **moody** -- Given to sudden or frequent changes of mind or feeling; temperamental.

- **nervous** -- Easily agitated or alarmed; apprehensive or anxious.
- **neutral** -- Not having a strong mood or emotional state.
- **offended** -- Feeling emotionally hurt, displeased, or insulted.
- **outraged** -- Feeling resentful anger caused by an extremely violent or vicious attack, or by an offensive, immoral, or indecent act.
- **playful** -- Interested in play; fun, recreational, unserious, lighthearted; joking, silly.
- **proud** -- Feeling a sense of one's own worth or accomplishment.
- **relaxed** -- Having an easy-going mood; not stressed; calm.
- **relieved** -- Feeling uplifted because of the removal of stress or discomfort.
- **remorseful** -- Feeling regret or sadness for doing something wrong.
- **restless** -- Without rest; unable to be still or quiet; uneasy; continually moving.
- **sad** -- Feeling sorrow; sorrowful, mournful.
- **sarcastic** -- Mocking and ironical.
- **satisfied** -- Pleased at the fulfillment of a need or desire.
- **serious** -- Without humor or expression of happiness; grave in manner or disposition; earnest; thoughtful; solemn.
- **shocked** -- Surprised, startled, confused, or taken aback.
- **shy** -- Feeling easily frightened or scared; timid; reserved or coy.

- **sick** -- Feeling in poor health; ill.
- **sleepy** -- Feeling the need for sleep.
- **spontaneous** -- Acting without planning; natural; impulsive.
- **stressed** -- Suffering emotional pressure.
- **strong** -- Capable of producing great physical force; or, emotionally forceful, able, determined, unyielding.
- **surprised** -- Experiencing a feeling caused by something unexpected.
- **thankful** -- Showing appreciation or gratitude.
- **thirsty** -- Feeling the need to drink.
- **tired** -- In need of rest or sleep.
- **undefined** -- [Feeling any emotion not defined here.]
- **weak** -- Lacking in force or ability, either physical or emotional.
- **worried** -- Thinking about unpleasant things that have happened or that might happen; feeling afraid and unhappy.

## 4 Mapping to Wireless Village Moods

The Wireless Village (now "IMPS") specifications for mobile instant messaging define a number of presence attributes, encapsulated in the "StatusMood" information element <sup>10</sup>. The following values are defined for StatusMood in Wireless Village, all of which map one-to-one from Wireless Village to the same values (albeit lowercase) in Jabber:

---

<sup>10</sup>The Wireless Village Initiative: Presence Attributes v1.1 (WV-029); for further information, visit <http://www.openmobilealliance.org/tech/affiliates/wv/wvindex.html>.

- ANGRY
- ANXIOUS
- ASHAMED
- BORED
- EXCITED
- HAPPY
- IN\_LOVE
- INVINCIBLE
- JEALOUS
- SAD
- SLEEPY

The full range of moods defined herein is richer than that defined in Wireless Village; no mapping is provided by this specification for mood values that are not present in Wireless Village, and any such mapping is the responsibility of a gateway between the two systems.

## 5 Internationalization Considerations

The XML character data values of the <value/> elements is not intended to be presented to a human user and thus there is no special reason to include an 'xml:lang' attribute unless the sender includes a <text/> element as well (as explained in RFC 2277 <sup>11</sup>, "internationalization is for humans"). It is the responsibility of the receiving application to provide localized text strings associated with the XML character data values defined herein, or some other appropriate presentation (e.g., graphical images that represent the mood).

---

<sup>11</sup>RFC 2277: IETF Policy on Character Sets and Languages <<http://tools.ietf.org/html/rfc2277>>.

## 6 Security Considerations

Because user moods may be published to a large number of pubsub subscribers, users should take care in approving subscribers and in characterizing their current moods.

## 7 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#) <sup>12</sup>.

## 8 XMPP Registrar Considerations

### 8.1 Protocol Namespaces

The [XMPP Registrar](#) <sup>13</sup> includes 'http://jabber.org/protocol/mood' in its registry of protocol namespaces.

## 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/mood'
  xmlns='http://jabber.org/protocol/mood'
  elementFormDefault='qualified'>
  <xs:element name='mood'>
    <xs:complexType>
      <xs:sequence>
        <xs:choice minOccurs='0'>
          <xs:element name='afraid' type='empty' />
          <xs:element name='amazed' type='empty' />
          <xs:element name='angry' type='empty' />
          <xs:element name='amorous' type='empty' />
          <xs:element name='annoyed' type='empty' />
        </xs:choice>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

<sup>12</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>13</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/>.

```
<xs:element name='anxious' type='empty' />
<xs:element name='aroused' type='empty' />
<xs:element name='ashamed' type='empty' />
<xs:element name='bored' type='empty' />
<xs:element name='brave' type='empty' />
<xs:element name='calm' type='empty' />
<xs:element name='cautious' type='empty' />
<xs:element name='cold' type='empty' />
<xs:element name='confident' type='empty' />
<xs:element name='confused' type='empty' />
<xs:element name='contemplative' type='empty' />
<xs:element name='contented' type='empty' />
<xs:element name='cranky' type='empty' />
<xs:element name='crazy' type='empty' />
<xs:element name='creative' type='empty' />
<xs:element name='curious' type='empty' />
<xs:element name='dejected' type='empty' />
<xs:element name='depressed' type='empty' />
<xs:element name='disappointed' type='empty' />
<xs:element name='disgusted' type='empty' />
<xs:element name='dismayed' type='empty' />
<xs:element name='distracted' type='empty' />
<xs:element name='embarrassed' type='empty' />
<xs:element name='envious' type='empty' />
<xs:element name='excited' type='empty' />
<xs:element name='flirtatious' type='empty' />
<xs:element name='frustrated' type='empty' />
<xs:element name='grumpy' type='empty' />
<xs:element name='guilty' type='empty' />
<xs:element name='happy' type='empty' />
<xs:element name='hopeful' type='empty' />
<xs:element name='hot' type='empty' />
<xs:element name='humbled' type='empty' />
<xs:element name='humiliated' type='empty' />
<xs:element name='hungry' type='empty' />
<xs:element name='hurt' type='empty' />
<xs:element name='impressed' type='empty' />
<xs:element name='in_awe' type='empty' />
<xs:element name='in_love' type='empty' />
<xs:element name='indignant' type='empty' />
<xs:element name='interested' type='empty' />
<xs:element name='intoxicated' type='empty' />
<xs:element name='invincible' type='empty' />
<xs:element name='jealous' type='empty' />
<xs:element name='lonely' type='empty' />
<xs:element name='lucky' type='empty' />
<xs:element name='mean' type='empty' />
<xs:element name='moody' type='empty' />
<xs:element name='nervous' type='empty' />
```

```
<xs:element name='neutral' type='empty' />
<xs:element name='offended' type='empty' />
<xs:element name='outraged' type='empty' />
<xs:element name='playful' type='empty' />
<xs:element name='proud' type='empty' />
<xs:element name='relaxed' type='empty' />
<xs:element name='relieved' type='empty' />
<xs:element name='remorseful' type='empty' />
<xs:element name='restless' type='empty' />
<xs:element name='sad' type='empty' />
<xs:element name='sarcastic' type='empty' />
<xs:element name='serious' type='empty' />
<xs:element name='shocked' type='empty' />
<xs:element name='shy' type='empty' />
<xs:element name='sick' type='empty' />
<xs:element name='sleepy' type='empty' />
<xs:element name='spontaneous' type='empty' />
<xs:element name='stressed' type='empty' />
<xs:element name='strong' type='empty' />
<xs:element name='surprised' type='empty' />
<xs:element name='thankful' type='empty' />
<xs:element name='thirsty' type='empty' />
<xs:element name='tired' type='empty' />
<xs:element name='undefined' type='empty' />
<xs:element name='weak' type='empty' />
<xs:element name='worried' type='empty' />
</xs:choice>
<xs:element name='text' minOccurs='0' type='xs:string' />
</xs:sequence>
</xs:complexType>
</xs:element>

<xs:simpleType name='empty'>
  <xs:restriction base='xs:string'>
    <xs:enumeration value='' />
  </xs:restriction>
</xs:simpleType>

</xs:schema>
```