



XMPP

XEP-0183: Jingle Telepathy Transport

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This document defines a telepathic transport method for establishing Extra-Sensory Perception (ESP) streams.

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1 Introduction

[Jingle \(XEP-0166\)](#)¹ defines a framework for negotiating and managing out-of-band multimedia sessions over XMPP. In order to provide a flexible framework, the base Jingle specification defines neither data transport methods nor media (session) types, leaving that up to separate specifications.

Typical peer-to-peer session types include voice chat (see [Jingle RTP Sessions \(XEP-0167\)](#)²) and video chat (see [Jingle Video via RTP \(XEP-0180\)](#)³). But Jingle can go farther. Indeed, why not support not only physical multimedia sessions (limited to the five physical senses) but also psychical multimedia sessions (which go beyond the basic physical senses to include advanced, extra-sensory perception)? The media (or medium) may be different, but the underlying principles are the same: fostering freedom of conversation by connecting people (e.g., through mind-reading and séances) and even applications such as accessing information from the future (e.g., in clairvoyance and precognition). Indeed, the ability to communicate with the spirit world will push Jabber/XMPP technologies into a new age of real-time communications (light years ahead of traditional IM and VoIP systems). Beyond Internet telephony, our innovations in Internet telepathy will give new meaning to the term "voice chat" as users are able to hear voices from the past, present, or future.

Unfortunately, these advanced session types cannot be supported using existing transport mechanisms such as [Jingle ICE-UDP Transport Method \(XEP-0176\)](#)⁴, [Jingle Raw UDP Transport Method \(XEP-0177\)](#)⁵, and [Jingle IAX Transport Method \(XEP-0179\)](#)⁶. Therefore, this document defines a new Jingle transport method for establishing and managing Extra-Sensory Perception (ESP) streams: the "telepathy" method.

2 Requirements

The Jingle telepathy transport method is designed to meet the following requirements:

1. Make it possible to establish and manage extra-sensory perception (ESP) streams between two XMPP entities.
2. Make it relatively easy to implement support in standard Jabber/XMPP clients.
3. Where communication with non-XMPP (indeed, non-material) entities is needed, push as much complexity as possible onto gateways between this world and the spirit world.

Note: Whether or not an ESP stream can be established depends on the user's native telepathic abilities as well as acquired telepathic skills such as grounding, centering, ping-pong,

¹XEP-0166: Jingle <<https://xmpp.org/extensions/xep-0166.html>>.

²XEP-0167: Jingle RTP Sessions <<https://xmpp.org/extensions/xep-0167.html>>.

³XEP-0180: Jingle Video via RTP <<https://xmpp.org/extensions/xep-0180.html>>.

⁴XEP-0176: Jingle ICE-UDP Transport Method <<https://xmpp.org/extensions/xep-0176.html>>.

⁵XEP-0177: Jingle Raw UDP Transport Method <<https://xmpp.org/extensions/xep-0177.html>>.

⁶XEP-0179: Jingle IAX Transport Method <<https://xmpp.org/extensions/xep-0179.html>>.

pulse-sending, broadcasting, scanning, probing, suggestion, and projection. ⁷ Your mileage may vary.

3 Protocol Description

3.1 Transport Initiation

In order for the initiating entity in a Jingle exchange to start the negotiation, it MUST send a Jingle "session-initiate" stanza as described in [Jingle \(XEP-0166\)](#) ⁸. This stanza MUST include at least one transport method. If the initiating entity wishes to negotiate the telepathy transport, it MUST include a <transport/> child element qualified by the 'http://jabber.org/protocol/jingle/transport/telepathy' namespace.

This <transport/> element MUST include one and only one <candidate/> element per channel specifying the parameters that the initiator believes will be most likely to succeed for that channel. (Note: You have to believe.) This is not necessarily the initiator's preferred address for spiritual communication, but instead is the "address most likely to succeed", i.e., the address that is assumed to be reachable by the vast majority of target entities. (Establishing direct spiritual communication is hard enough as it is.) Here is an example:

Listing 1: Initiation Example

```
<iq from='medium@example.com/seance' to='psychic@example.net/
spiritworld' id='jingle1' type='set'>
  <jingle xmlns='http://jabber.org/protocol/jingle'
    action='session-initiate'
    initiator='medium@example.com/seance'
    sid='a73sjvkl37jfea'>
    <description xmlns='urn:xmpp:example' />
    <transport xmlns='http://jabber.org/protocol/jingle/transport/
telepathy'>
      <candidate name='ihearvoices' generation='0' plane='9' pulse='80
,
          psi-sig='yellow_happy_bright_open_no-shields'
          sign='Pisces' time='present' />
    </transport>
  </jingle>
</iq>
```

The attributes of the <candidate/> element are as follows:

- The 'generation' attribute is an index, starting at 0, that enables the parties to keep track of updates to the candidate throughout the life of the session.

⁷For a good introduction to telepathic skills, see The Telepathy Manual located at <<http://www.psipog.net/art-telepathy-manual.html>>.

⁸XEP-0166: Jingle <<https://xmpp.org/extensions/xep-0166.html>>.

- The 'name' attribute specifies a unique name for the channel.
- The 'plane' attribute is used for diagnostics; it is an index, starting at 1, referencing which astral plane this candidate is on for a given peer.
- The 'pulse' attribute specifies the initiator's heart rate at the moment; this helps establish communications through pulse-sending of informational messages in time with the beat of your heart.
- The 'psi-sig' attribute is the initiator's Psi Signature or "energy fingerprint"; because scanning people for their psi-sig can take time and is often a challenge, advertising one's psi-sig ahead of time makes it easier to establish a spiritual connection. The format of the 'psi-sig' attribute is a space-delimited set of descriptive words, often including colors, feelings, and emotions characterizing the person's energy state at the moment. Note: A person's psi-sig can change from moment to moment; therefore, it is advisable to also advertise it using [Personal Eventing Protocol \(XEP-0163\)](#)⁹.
- The 'sign' attribute represents the initiator's Zodiac sign; including this value obviates the need for asking "what's your sign?"
- The 'time' attribute is used for diagnostics; the allowable values are "past", "present", and "future".

3.2 Receiver Response

As described in [Jingle \(XEP-0166\)](#)¹⁰, to provisionally accept the session initiation request, the receiver returns an IQ-result:

Listing 2: Receiver Provisionally Accepts the Session Request

```
<iq type='result' from='psychic@example.net/spiritworld' to='
  medium@example.com/seance' id='jingle1' />
```

To definitively accept the telepathy transport method, the receiver MUST send a <jingle/> element with an action of 'transport-accept', specifying the transport method desired.

Listing 3: Receiver Accepts the Telepathy Transport Method

```
<iq type='set' from='psychic@example.net/spiritworld' to='
  medium@example.com/seance' id='jingle2'>
  <jingle xmlns='http://jabber.org/protocol/jingle'
    action='transport-accept'
    initiator='medium@example.com/seance'
    sid='a73sjvkla37jfea'>
```

⁹XEP-0163: Personal Eventing Protocol <<https://xmpp.org/extensions/xep-0163.html>>.

¹⁰XEP-0166: Jingle <<https://xmpp.org/extensions/xep-0166.html>>.

```
<transport xmlns='http://jabber.org/protocol/jingle/transport/telepathy'>
  <candidate name='ihearvoices' />
</transport>
</jingle>
</iq>
```

The initiating entity then acknowledges the receiver's acceptance:

Listing 4: Initiating Entity Acknowledges Definitive Acceptance

```
<iq from='medium@example.com/seance' to='psychic@example.net/spiritworld' id='jingle2' type='result' />
```

Now the initiating entity and receiver can begin sending appropriate psychical media over the negotiated ESP stream.

In the event that the receiver cannot establish a channel, it SHOULD terminate the session (see [Jingle ICE-UDP Transport Method \(XEP-0176\)](#)¹¹ or XEP-0177 for examples).

3.3 Informational Messages

Because the informational message payloads specific to the telepathy transport method cannot be tied down to the arbitrary conventions of XML syntax, a `<message/>` element qualified by the `'http://jabber.org/protocol/info/telepathy'` namespace may include any character data that either party feels like communicating.

4 Deployment Notes

This specification applies exclusively to Jabber/XMPP clients and places no additional requirements on Jabber/XMPP servers. However, service administrators may wish to deploy a gateway to the spirit world in order to ease the channel negotiation process. How to develop such gateways is an inexact science (but it is a science!) and therefore is outside the scope of this document.

5 Security Considerations

To the author's knowledge, no channel encryption technologies exist for direct spiritual connections. Although this vulnerability can be mitigated through speaking in tongues and the use of various alternative languages such as Runic and Mumbo-Jumbo, the result is only security through obscurity, not channel encryption as those familiar with the merely

¹¹XEP-0176: Jingle ICE-UDP Transport Method <<https://xmpp.org/extensions/xep-0176.html>>.

material world understand it. If only benighted materialist scientists and technologists would recognize the validity of psychical experience and extra-sensory perception, progress in applying encryption principles to psychical channeling and the exchange of pure spiritual energy would rapidly ensue.

6 IANA Considerations

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

7 XMPP Registrar Considerations

7.1 Protocol Namespaces

The [XMPP Registrar](#)¹³ shall include 'http://jabber.org/protocol/jingle/transport/telepathy' and 'http://jabber.org/protocol/jingle/info/telepathy' in its registry of protocol namespaces.

7.2 Jingle Transport Methods

The XMPP Registrar shall include "http://jabber.org/protocol/jingle/transport/telepathy" in its registry of Jingle transport methods. The registry submission is as follows:

```
<transport>
  <name>telepathy</name>
  <desc>
    A method for the negotiation of Extra-Sensory Perception (ESP)
    streams.
  </desc>
  <doc>XEP-0183</doc>
</transport>
```

8 XML Schemas

8.1 Transport Method

¹²The 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/>.

¹³The 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/>.


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

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

  <xs:element name='transport'>
    <xs:complexType>
      <xs:choice>
        <xs:sequence>
          <xs:element ref='candidate' minOccurs='0' maxOccurs='1' />
        </xs:sequence>
      </xs:choice>
    </xs:complexType>
  </xs:element>

  <xs:element name='candidate'>
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base='empty'>
          <xs:attribute name='generation' type='xs:unsignedByte' use='
            required' />
          <xs:attribute name='name' type='xs:string' use='required' />
          <xs:attribute name='plane' type='xs:positiveInteger' use='
            optional' />
          <xs:attribute name='pulse' type='xs:positiveInteger' use='
            optional' />
          <xs:attribute name='psi-sig' type='xs:string' use='optional'
            />
          <xs:attribute name='sign' use='optional'>
            <xs:simpleType>
              <xs:restriction base='xs:NCName'>
                <xs:enumeration value='Aquarius' />
                <xs:enumeration value='Aries' />
                <xs:enumeration value='Cancer' />
                <xs:enumeration value='Capricorn' />
                <xs:enumeration value='Gemini' />
                <xs:enumeration value='Leo' />
                <xs:enumeration value='Libra' />
                <xs:enumeration value='Pisces' />
                <xs:enumeration value='Sagittarius' />
                <xs:enumeration value='Scorpio' />
                <xs:enumeration value='Taurus' />
                <xs:enumeration value='Virgo' />
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

```

        </xs:attribute>
        <xs:attribute name='time' use='optional'>
          <xs:simpleType>
            <xs:restriction base='xs:NCName'>
              <xs:enumeration value='future' />
              <xs:enumeration value='past' />
              <xs:enumeration value='present' />
            </xs:restriction>
          </xs:simpleType>
        </xs:attribute>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>

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

```

8.2 Informational Messages

```

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

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

  <xs:element name='message' type='xs:string' />
</xs:schema>

```