Virtual Presence

... with XMPP
... and beyond

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What is Virtual Presence?

• meet people on Web pages
• chat, VoIP, collaborate
• talk, flirt, trade, equip, play, fight, live ... 
• do what they do in the real world, e.g. ignore each other
What is behind it?

• a graphical Jabber chat client
• a Jabber network
• a URL mapping scheme
• avatars, animations, bells and whistles
• much spare time
• a dream

• anyone may join without being registered with a large IM network (AOL, MSN, Skype, ...)
• anyone can run a VP client and choose a trusted server to walk on the Web with a rich and animated avatar
• VP will not be fragmented by technical and administrative measures like the IM world
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General Concept

<table>
<thead>
<tr>
<th>XEP-151</th>
<th><a href="mailto:0acd465bbb0ec47c393eee1b4ae069f228dde142@location.virtual-presence.org">0acd465bbb0ec47c393eee1b4ae069f228dde142@location.virtual-presence.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>regex</td>
<td>&lt;presence to=&quot;...&quot;</td>
</tr>
<tr>
<td></td>
<td>&lt;presence from=&quot;1..&quot;</td>
</tr>
</tbody>
</table>

Mapping Rules XEP-151
Architecture

URL

A Client

<presence/>

A Server

Mapping Rules

Global

Default

MUC

B Client

B Server

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We Use

- Jabber/XMPP core as transport protocol
- ejabberd as connection aggregator, MUC as VP server
- custom client
- XML and regex for the URL mapping

```xml
<location match='^((https://)+([0-9]*\.)?([\^/]+\.(\[^/\.]\)+))($|/.*$)'>
  <service>xmpp:location.virtual-presence.org</service>
  <name hash="SHA1">\5</name>
</location>
```

- XMPP extensions
  - avatar position, user data
- HTTP/XML based storage for character data

```xml
<identity digest="123">
  <item contenttype="avatar" digest="456" src="http://mypage.com/avatar.xml"/>
  <item contenttype="properties" digest="789" mimetype="text/plain">
    Nickname=MyName
  </item>
</identity>
```

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Beyond XMPP

• Jabber is a great protocol for VP
  – thanks to the inventors, devs, and ...
• We use it as the transport protocol
  – no fancy features, just messaging
  – standards, interoperability, experience
  – solutions for the C10K problem
• Missing
  – avatars and more for end user "bells and whistles"
  – ease of use for consumers
• Other networks and protocols
  – VP needs a chat system (can be Jabber)
  – any chat server can be a VP server (MUC is a good one)
  – URL mapping is open to other networks (MS)
• I hope that XMPP will become the default VP protocol
Beyond Avatars

• JPEG/PNG/GIF images
• animated GIF for walk/talk and emotes (/dance)
• we are going to add:
  – 3d avatars
  – game avatars (your MMOG character always with you)
  – 3d objects (from living room chair to shop counter)
  – interaction between avatars and objects (NPCs, bots)
  – interaction between avatars and the page
• we will extend the space in front of the page
• there are different directions possible
  – game like: quests, MUD, skilling, fighting
  – business oriented: adding FOAF features
  – flirt: dating w/o an expensive dating site

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Reality and Theory

- **Reality:**
  - we run a single server where users create a VP account
  - to make it simple and make it work on all Web pages
- **Theory:**
  - our server just happens to be the first server of a distributed system
  - anyone can program a client and connect
- **Reality**
  - there is only one such client with avatars (Win)
  - all XMPP clients can connect
  - lms.virtual-presence.org provides all URL mapping rules
- **Theory:**
  - web sites can provide their own rules
  - domestic authority
  - public and private spaces

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The End

beta started 3 months ago
5000 accounts
200 concurrent

http://www.virtual-presence.org/
http://www.webmobs.de/manifesto.html

Free the avatars
Reclaim the streets (of the Web)

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