

# Tuesday, October 26, 2004

## Meeting Log

### **Purpose: Protocol Documents (XMPP) Discussion**

Time: October 26, 2004 Tuesday, 4:30 PM

Location: Sun Lab

Secretary: Brandi Soggs

Present: Jason, Jason, Matt, Steven

### **Items Discussed:**

#### *Upcoming Documents*

- Document meeting with Salman on Tuesday
- Have upcoming documents done by Monday before the meeting

#### *XMPP Core*

- The infrastructure, the basic building blocks: XML, XML Standards, namespaces, how the servers talk.
- XMPP is usually used with a client-server architecture
- We probably won't be too concerned with how the servers communicate with each other, or how to communicate with other clients. Mostly, we're worried about the client-server interaction
- The server stores all relevant data: buddy list and such
- Jabber ids defined in ABNF—jid = [node "@" domain ["/" resource] (resource is not the jabber client name). More ids are defined on page 5 of XMPP Core (page 6/82 of the printout)
- Resource is an arbitrary thing, can be set as needed. Could be a nickname, could be a specific machine, could even be more general
- How to collect the correct jabber id from the initial messages? To/From in initial messages? Which messages do not include the jabber id?
- The allowable length of JID is  $\leq 1023$  bytes
- Bare jid- just the node@domain
- The resource name is somewhat ignored in deciding where to send messages. Do different implementations of jabber clients all use their own /resource? Perhaps. If so, we could have a /inkboard and allow the user to maintain the same jabber id for both chat (via a separate client) and to inkboard
- There is a system within XMPP that deals with security. We're not entirely certain if implementing the security is required (and if it's not, we will not be implementing it). Security would be good if we ever want to talk to other clients, but talking only to our program we might be able to get away with not implementing it.
  - o Consider testing this with a simple "chat". Set up a stream, send one message and see if it goes through
- We're going to want the latest version of XMPP possible without having to implement a lot of extra stuff
- Namespace defines what are valid tags. So, we will have to define our own namespace
- Find an XMPP tag, send it a features tag, and see what it will support

- TLS and SASL are for security, which we're hoping to not implement. Later expansions can add security, but it's just not part of the main focus for now
- Finished up at section 8 (page 37), Server Dial back

#### *XML (side note in XMPP Core)*

- streams must be started on both ends (client, server) after the initial stream
- stanzas start with <message>, <presence>, <iq> at depth 1 of the stream
- im clients have their own special setup of how things look within a tag. We don't want to come up with our own stanza type, it'd probably not work with the servers
- Can the server identify when clients have dropped? Does it require a keep alive every so often?
- Whenever you close the stream, be sure to close the TCP connection as well
- It doesn't hurt to have too many tags, they'll just be ignored if undesired
- Do we have control of the id field in the to/from? Might be a good place to store our order of nominal hosts/ change authority rank
- xml-lang will matter little, since we're not transmitting any human-readable data
- stream-level errors are fatal
- The stream errors are variations on "I am no longer talking to you"
- Are going to want a separate namespace for inkscape errors? We could use our own application-specific child errors

#### *Console usage*

- We'll want a console command to start chat sessions and such
- We'll want to use the console abilities and see how the errors are reported/formatted. When we encounter errors, we will want to have a similar approach to reporting errors to the users via the console

#### *XMPPIM*

The "meat": How to use the core to implement the system

#### *XMPP CPIM*

How the Jabber client will interoperate with other clients (not so high on our list)

#### *XMPP-E23*

Encryption. Not very relevant to your project at this point in time (perhaps later versions of the inkboard)

#### *Wish List (things that would be nice that we probably won't do)*

- Chat
- Security
- Resource identifiers (to allow users to just have one jabber id)

**Tasks assigned:**

*Test Plan*- Jonas, Jason due by November 1<sup>st</sup>, 12:00pm

*Design Document* - Matt, Steven due by November 1<sup>st</sup>, 12:00 pm

*Project Plan 2*- Brandi due by November 1<sup>st</sup>, 12:00pm

**Next Meeting / Scheduling:**

Meeting in Salman's office on documents so far: Tuesday, November 2, 10<sup>th</sup> hour

Brandi will bring paper copies of the documents