XEP-0007: Conferencing SIG

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A proposal for a Jabber Interest Group that will discuss the protocol for implementing many-to-many communications.
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1 Introduction

The following proposal is for the formation of a Jabber Interest Group that will create a new conferencing protocol, as well as create additional functionality and standardize communications on top of said conferencing protocol.

2 Base conferencing protocol

The initial task of the Conferencing SIG will be to propose a Jabber Conferencing specification that will solve various problems which exist in the current "groupchat" specification. This specification is meant to be a foundation for additional functionality; it defines the framework needed to provide additional features, without requiring changes to the framework specification itself. There is also to be a certain amount of feature-negotiation included; the conferencing service can define what features can be declared for a room, both as optional and required client features for room participation.

The framework's scope consists of the following minimum functionality:

- Browsing a list of public rooms
- Finding a public room based on search parameters
- Creating new rooms
- Destroying rooms
- Entering existing rooms
- Altering functionality of a room
- Querying a room for public information
- Sending and accepting invitations to a room
- Changing a participant's nickname within a room
- Discovering and changing features on a running room
- Changing a participant's status within a room
- Sending a message to a room or a specific participant within a room

In addition to these basic functions, we can imagine numerous different types of conferencing features; for example, hidden rooms created on the fly for discussions between a Jabber user and their friends or co-workers, transports providing access to similar foreign systems such as IRC, additional client functionality such as shared-location (URL/Co-browsing) and whiteboarding, and so on. There might also be requirements for security levels (for instance,
normal participant, moderator, and room admin). Additional information may also be con-
vveyed to users about one another, such as a user’s real Jabber ID. Room entry or participation
within a discussion might also have restrictions on some systems.
The framework protocol is meant to provide a basis for designing these additional features.
Some features, such as co-browsing, could be implemented entirely client-side; others may
require significant logic within the conferencing implementation. In addition, some features
may be optional for participation within a room, while other features could be required in
order for a client to participate within a room.

3 Justification for new Conferencing protocol

While the current "groupchat" specification is rather simple to implement, it is rather
inflexible and cannot easily be extended; specifically, it has the following disadvantages:

• There is no control over how you enter a room - for instance, you can not specify a
password for entering a password-protected room.

• There is no way to create a room without entering it, and no way to tell the state of the
room without being a participant within it. This means among other things that a client
can not transparently use groupchat for starting multi-user chats.

• Changes in room state are often conveyed via text messages rather than XML. Among
other things, this limits the display of messages to the English language and limits a
client author’s freedom in displaying this information.

• A Participant’s entry into a room is abstracted from their real Jabber account in both the
old and new protocols; however, ”groupchat” provides no way of tracking users across
nickname changes or across sessions within a conference room.

• The ”groupchat” protocol has no way of performing feature negotiation (e.g., specifying
the additional protocol elements needed to participate in a room, or optionally allowed
from participants within a room). If there were participants with clients sending cus-
tom data through the room (such as XHTML or whiteboarding), you would receive that
information even without your client being able to support it, and have no way of distin-
guishing altered behavior due to additional features of a ”groupchat” implementation.

This new conferencing protocol will be designed to solve these problems.
Because of the prevalence of the existing "groupchat” specification for multi-user chats,
a long conversion process is anticipated. A server implementation which supports both
protocols will simply not allow ”groupchat”-only clients to participate in rooms with required
features.
4 Continuing Development

As listed above, there is a fairly large number of features that could be developed on top of a well-designed framework. The Conferencing SIG will first be established to develop a framework, with features mainly being compared against the framework for feasibility of implementation. After a proposal has been formalized as a specification, the SIG will become a group for discussing and proposing new features, and for formally specifying those features.