

Global General Assembly

Summary

A secure, web-based, encrypted text chat system based on IRC for organizing political movements. The chat system will integrate encryption of text through OTR. Global GA will also incorporate voting and planning aids.

Benefits to the Community

In the past two years, revolutions swept the world. A key part of these was the general assembly, a forum for anyone to share their opinions on issues facing the movement. I believe social movements worldwide could benefit from an online version of the general assembly to share ideas with people all over the world, including those who might not be comfortable with the risk associated with attending in-person meetings. Global General Assembly would provide that forum for secure online discussions.

Features

The current and planned features of Global GA are outlined in the sections below. For a more specific treatment of the features, please see the features completed and features in progress sections and the end of this documentation.

Chat:

Global GA provides a chat that is semi-compatible with IRC. The client makes this chat very easy to use without understanding how to use IRC.

1. Chat Box: Users send messages to a chat. They can do this through a send button or by hitting enter. Channels have an editable channel topic at the top. The chat is tabbed by channel and each channel has its own set of functions. Each channel can be exited by clicking the X next to its tab.
2. User List: A list of users in a channel shows up on the info tab. Users can start a private message with others in this list by clicking their name.
3. Account Management: Accessible through a button on the info tab. This provides the option for users to login or logout, register, or add a new nick for every network they are on.
4. Preferences: Accessible through a button on the info tab. This gives users the ability to modify their viewing settings beyond the normally adjustment of the page by dragging margins, rearranging tags, deleting channel tabs.
5. Op Pane: Accessible through a button on the info tab if someone is an op on a given channel. It includes functions for kicking users, banning users, adding other ops, changing channel modes, etc.
6. Add Channel: Users can add a channel after clicking a + button in the corner that allows them to add channels and networks. It also allows users to create channels and start their own private chats.

Encryption:

The Global GA chat is encrypted using multi-party OTR. More details on this to come when mpOTR is further developed.

Decision Aids:

Global GA provides voting methods for different group sizes, structures, and activities. Global GA is primarily a chat so these methods are designed to be semi-synchronous. These voting methods assume that the group is trying to either make a choice or gauge group opinion. All voting-related actions are in the form of commands sent to the server from the client so they are encrypted. The following will be available in the area next to the chat as a tab 'Decide'.

1. Issue Panel: A table with issues on one side and a field for viewing the highlighted vote on the other allows users to select issues and vote. Ops and those who initiated a vote will be able to remove it from this table.
2. Add Poll or Temp Check: An interface will allow people to create or remove the poll, temp check, or other voting option. A drop down menu at the top of the default decide tab allows users to choose what they want to add and an interface guides them through setting issues and topics.
3. Temperature Check: Users select an option on a sliding scale as a discussion goes to show their current opinion on an issue. This requires real time participation but gives a clear picture of the current opinions of participants in a discussion and how they change in reaction to proposals. It is a useful tool to keep tabs on participants views during discussion more than for voting itself. It can be used in groups of all sizes.
4. Standard Poll: Users can pose a question and request all others in the chat check a response option. This is good for deciding on or between proposals. It can be used in groups of all sizes but is especially useful in large groups where it can be difficult to track votes.
5. Block: Users can initiate a block of proposals. The block function allows users to click a button, receive an explanation of what a block is, and input their objection if they decide it qualifies as a block. The block icon is displayed at the bottom of every voting option.

Planning and Idea Generation:

Groups often need to brainstorm, write proposals, craft statements, and plan projects. This is a list of tools (called documents hereafter) Global GA provides for different types of groups, sizes, and tasks. Also note that the chat itself is a powerful tool for brainstorming. All document creation is in the form of commands sent from the client to server, which are encrypted. Some of the document options have further encryption and security options. These are on the 'Think' tab.

1. Document Table: A table displays document names and the type of document. Clicking it loads the document, opens a link, or downloads a file. It allows ops and those who added the document to remove it.
2. Add Documents: A dropdown menu at the top allows people to add documents of various types and upon selection people will be walked through the document addition process for the type they chose.
3. Etherpad Integration: Global GA provides encrypted etherpad integration for brainstorming, writing, and taking minutes in small and medium sized groups.
4. Wirite Integration: Wirite is a tool similar to Etherpad but designed for larger groups. Global GA provides wirite integration for large group proposal writing.
5. Link Sharing: Users can submit links relevant to the discussion.
6. File Upload: Users can upload files. All uploads are encrypted. It is impossible to tell who is uploading files because the DOM is constantly uploading to the server for all users. This also helps with masking information sent to the server.

Code Structure

This is an outline of what is in each code file. For method-specific information, please see the method in the code.

1. Server.java: This is the main server code which includes message processing and dispatching as well as command processing, account management, and channel management.
2. ServerThread.java: This receives messages from the client and directs them to the appropriate methods in the server file.
3. Client.java: This displays the GUI, manages GUI-triggered commands, and sends messages.
4. ClientApplet.java: This sets up the client for display in the html file.
5. globalga.html: This is the html file that displays the applet.