

High Level Design

Chat Application

Version 0.2

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Introduction:

EDGE messenger is a communication based application for desktops that uses IP address to send text messages, along with other graphical stickers and emoticons.

Scenario 1: The Login Menu

After user entering the login details in chat window, the credentials will be authenticated with the login details maintained at the front end part. If the authentication fails, the user will be at same login menu showing re-enter password or forgot password options.

When New user register their details they will be maintained at the front end of the users application as well as in server.

When user clicks on “*forget password*” option provided in the login menu, user must authenticate by self providing the details and answering a security question maintained in server. The details will be compared and if matched with details of the user at the server, can change his password.

Scenario 2: The Contact Menu

User can see the saved contacts. When user clicks on add contact, all the details that user provided should be saved at front end. When user clicks on search contacts, the front end searches the particular contact in the contact list and displays. User created groups will be maintained at the server and as well as in front end.

Whenever the user clicks on particular contact user will get the status (online / offline) by the help of server. When user select chat option the connection will be established, if user is in online.

Scenario 3: The Chat Window

When the user wants to chat with a contact, the connection will be established with the contact, the messages that user send to the remote user will be processed in the front end, goes to the back end. It will be sent on the external network by the back-end and reaches its destination. If targeted user is in offline then the message will be forwarded to contact with the help of server when contact comes back online (i.e server stores the message till it reaches to destination).

When the user receives a message, the back end receives it and the interface passed it to the front end. The front end processes it and displays the message.

In case of scheduled message, the time and date will be stored at the server and when the epoch is reached , the server sends message to recipient.

The chat history will be maintained by the front end. If the user wishes to clear the chat history, the front end will wipe out all the chats.

In case the user intends to forward a particular message to a user or to all users, the users back end will multi cast (selected contacts) the message to all selected contacts on the network.

Scenario 4: Group Messages

If the user intends to send a group message, the message will be sent to all the group users. The front end passes the group users information to the back end and the back end forward the message to the group users. The group user information is maintained by server to track the group information.