## **Chat Application**

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An application, that allows people to connect and exchange messages, images, audio and files.

## Main Features

- Send and Receive text messages;
- Send and Receive photos, files and audio messages;
- Create and Join chat groups;
- Create conversations peer-to-peer (no data stored on server, for security reasons);
- Peer authentication using certificates;
- Encrypt conversations and files;
- File checksum verifications;
- Multiple servers for backup and message handling;

## Web Services

- 3rd party web services
  - o Facebook authentication
- Provided services
  - o Service 1
    - User authentication
    - Backup messages, photos, files, audio, etc
    - Backup user information
    - Receive/Send messages
    - Delete messages
- Links between services
  - Communication between servers to guarantee a minimum replication degree of 2.

## **Target Platforms**

Command line application for any desktop system

Additional Services and Improvements (if time permits):

- Walkie-talkie system (real-time voice exchange);
- Desktop user interface
- Android mobile application
- Use raspberry pi's as servers

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