CPRE 491 STATUS REPORT #10

March 12, 2020 - April 2, 2020

Group: SDMAY20-52

Project Title: KEY EXCHANGE OUTSIDE OF TCP/IP

Client & Advisor: Julie Rursch

Team Members:

- Logan Woolery   Lead Integrations Engineer
- Jacob Moody   Server Developer Lead
- Joel Wacker   Android Developer
- Andre C   Server Development Tester
- Jack Potter   Client Architecture Tester
- Jordan Svoboda   IOS Developer

Past Week Accomplishments

- ❖ Andre- Client-side development
    - ➢ Assisted with client side implementation
        - ■ Networking functionality enhanced
        - ■ Tested code on both IOS and Android, fixed some minor errors
- ❖ Jacob- Stress testing of backend code
    - ➢ Work on documentation
- ❖ Jack
    - ➢ Rebuilt client testing environment
        - ■ Changes were necessary due to moving home, having access to different hardware
    - ➢ Formulated plans for collaboratively testing features that require physical proximity
        - ■ Obviously can't test things together anymore
    - ➢ Android Client Testing

- ❖ Joel
    - ➢ QR code creator research
        - ■ Finding flutter tools for creating QR codes
    - ➢ Implement QR code generation with keypairs in the database

- ❖ Jordan
    - ➢ Improved and tested functions that use our public-private keypair for message signing and verification
        - ■ Encountered an issue with the libraries that were being used to generate and use the keypair

- ➢ Integrated messaging signing functionality into our application
- ➢ Began developing a widget to display messages and allow for message creation
  - ■ Displays a list of messages between two users by fetching them from our database

- ❖ Logan
  - ➢ Make the experience better
  - ➢ Begin final testing
  - ➢ Start the end of semester materials
    - ■ poster
    - ■ presentation

Pending Issues

- ❖ Design/Rendering of chats needs implemented in Flutter
- ❖ GUI design needs to be improved
- ❖ Pandemic discussion: discuss if there is quick alternative to in-person sharing of keys

Individual Contributions

Team Member	Contribution	Weekly Hours	Total
Jacob Moody	Development	16	58
Joel Wacker	App Development	17	66
Andre C	App Development	18	88
Jordan Svoboda	iOS development	16	80
Logan Woolery	UI/UX	18	54
Jack Potter	Client work	16	49

Plans for Coming Week

- ❖ Andre-
  - ➢ Continue to integrate functionality
    - ■ Messages sent/received from server are handled properly
    - ■ Database testing and integration for user and message objects
  - ➢ Test Android/iOS application as new or improved functionality is implemented

- ❖ Jacob-
  - ➢ Continue work on GoDoc
  - ➢ Optional ability to dump messages to file for backups

- ❖ Jack
  - ➢ Client Testing
    - ■ Continue testing android client
    - ■ Attempt to set up iOS testing environment
      - ● may not be possible due to different hardware at home
  - ➢ Server testing
    - ■ Set up fuzzing if possible
    - ■ stress testing

- ❖ Joel
  - ➢ Client / Server testing
    - ■ Test everything integrated together, QR code generator and chat

- ❖ Jordan- Continue client side encryption implementation
  - ➢ Continue working to integrate existing functionality into the beta application
  - ➢ Continue implementation of messaging widget
  - ➢ Continue testing of the database and cryptography functions

- ❖ Logan
  - ➢ Finalize Ui/X flow
  - ➢ Quality Assurance working