



ET1446: SOFTWARE DEVELOPMENT FOR TELECOMMUNICATION SYSTEMS

This document (SRS) is a description of our software system to be developed, laying out functional and non-functional requirements, and including a set of use cases that describe interactions the users will have with the software.

SOFTWARE REQUIREMENTS SPECIFICATION V1.2

Group: SWAT Kats

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SOFTWARE REQUIREMENTS SPECIFICATION

1. PREFACE

This document contains a software requirements specification to create a chat client called “**LetsTalk**” for XtremeSecurity. The document is specifying the software requirements and use case which are to be executed by our team “**SWAT Kats**”.

In the following we will first provide a glossary with a list of abbreviation in chapter 2. After that, we develop the system architecture that we are going to follow in section 3. Lastly, we analyse the software requirements for our project.

VERSION HISTORY OF THIS DOCUMENT:

Release v1.2 on 2015-05-05

- In section 4.1 split old requirement 2 into requirement 2 and 3
- Added creation date and removed test attributes (will be defined in design document) from all requirements in section 4
- Modified Database section 3.3 focusing on *what* the product does and not *how*
- Added abbreviations on section 2

Release v1.1 on 2015-04-30

- Added requirement 7 on user requirements in section 4.1

Release v1.0 on 2015-04-27

- Initial release

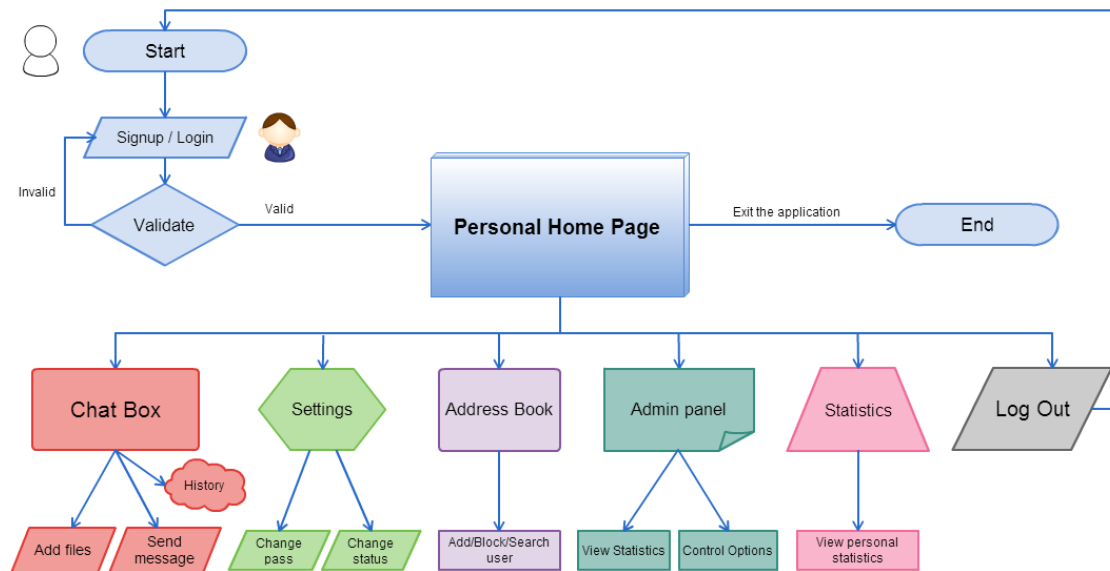
2. GLOSSARY AND ABBREVIATIONS

In this section are defined technical terms that are in this document in alphabetical order.

- **ER diagram:** Entity Relationship diagram
- **REQ:** requirements
- **USR:** User

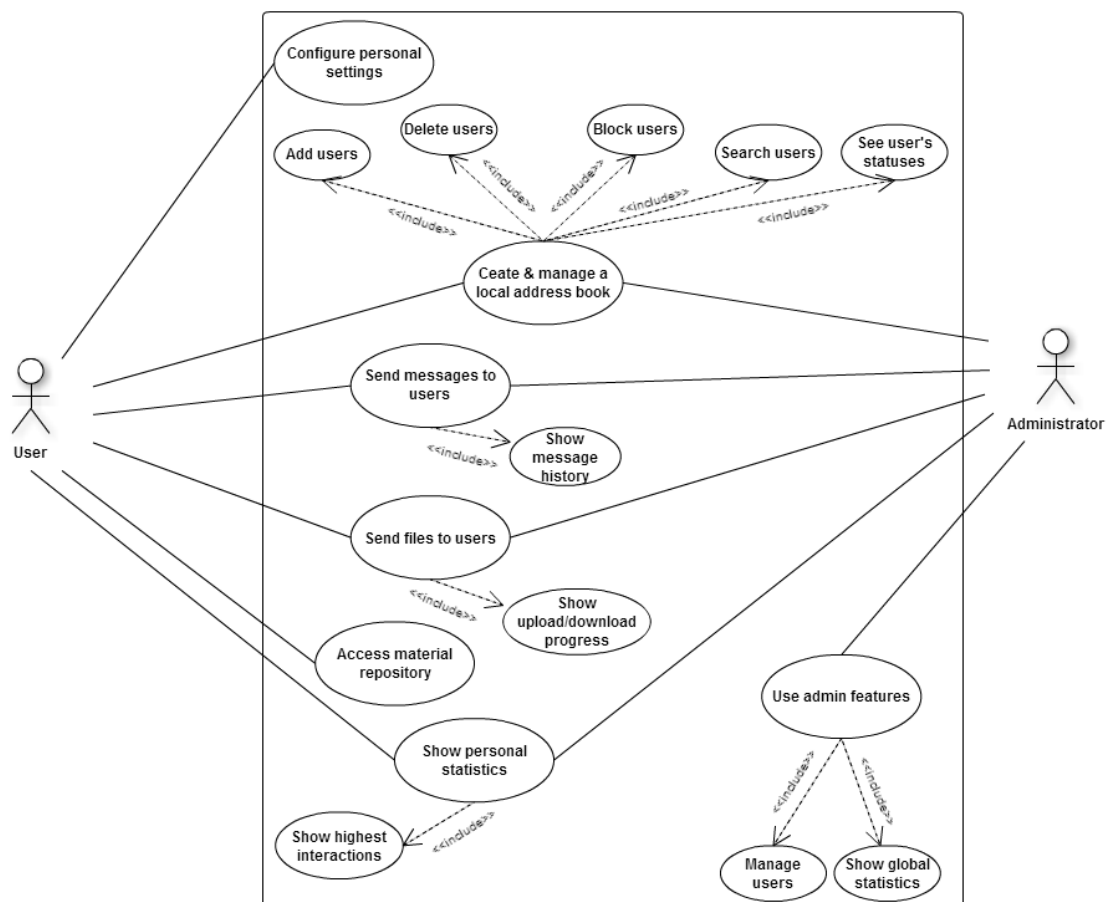
3. SYSTEM ARCHITECTURE

Here is a **general flowchart** on how our application works:



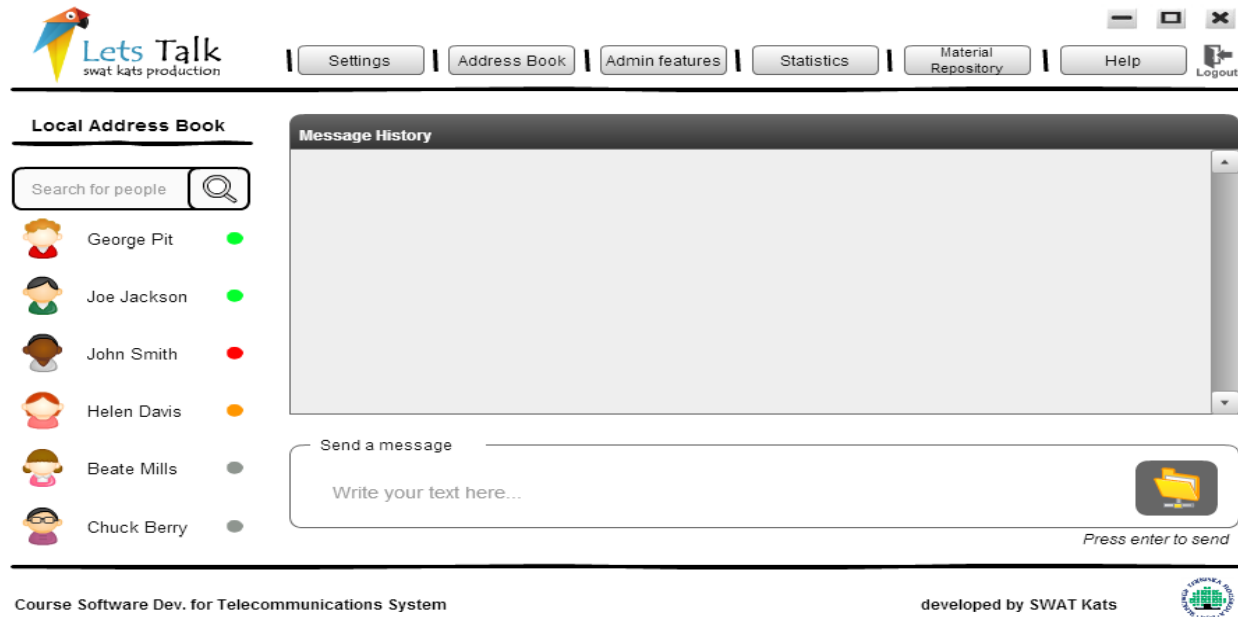
3.1 USER CASES DIAGRAM

Here we present the user cases, showing the activities that each user (and admin) can do with our software.



3.2 GUI ARCHITECTURE

Here is the home page architecture design.



3.3 DATABASE

All the data will be maintained on the server and every client will be contacting the server for making any query in the database of inserting any data or fetching any conversation etc. . Separate tables for users, types of conversations and their reply messages will be defined containing only the ids of the respective message. Actual content of text messages and files will be kept in separate tables which will be accessible by their unique ids. In future if the application is upgraded with more features of delete the history that will be only for that particular user. But messages and files once sent will remain in the server for the admin to see.

4. REQUIREMENTS

4.1 USER REQUIREMENTS

1. **Requirement ID:** REQ_USR_1

Requirement: Registered user must be able to login by inputting his information in login page.

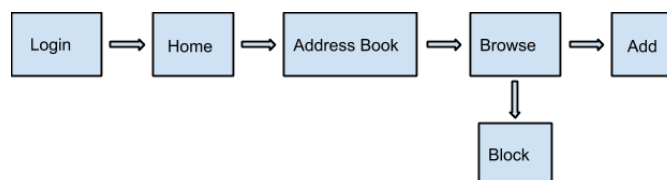
Creation date: 2015-05-05

Module: General

Type: functional

Assignee: Sokratis Papadopoulos (GUI), Johannes (Database Connection), Jibraan Chahal (Database)

Description:



2. **Requirement ID:** REQ_USR_2
Requirement: Registered user must be able to add other registered users in his address book by selecting users from global address book.
Creation date: 2015-05-05
Module: General
Type: functional
Dependencies: REQ_USR_1
Assignee: David Alacron Prada (GUI) ,Rohit Raghav (Database)
3. **Requirement ID:** REQ_USR_3
Requirement: Registered user must be able to block users in his address book
Creation date: 2015-05-05
Module: General
Type: functional
Dependencies: REQ_USR_1
Assignee: David Alacron Prada (GUI) , Gautam Vij (Database)
4. **Requirement ID:** REQ_USR_4
Requirement: A user will be able to change his status online/busy by clicking on status field.
Creation date: 2015-05-05
Module: General
Type: functional
Dependencies: REQ_USR_1
Assignee: David Alarcon Prada (GUI), Akanksha Gupta (Texting / File transfer)
5. **Requirement ID:** REQ_USR_5
Requirement: A user will be able to configure his account, eg changing password.
Creation date: 2015-05-05
Module: General
Type: functional
Assignee: Sokratis Papadopoulos (GUI), Inanc Gurkan (Database)
6. **Requirement ID:** REQ_USR_6
Requirement: System will allow a user to send text/files to his contacts.
Creation date: 2015-05-05
Module: General
Type: functional
Dependencies: REQ_USR_2
Assignee: Jyoti(texting/transfer) , Gautam Vij (Database) , David Alacron Prada(GUI)
7. **Requirement ID:** REQ_USR_7
Requirement: System will allow an admin to view call records and relevant graphs as well as add and remove users from the application's database.

Creation date: 2015-05-05

Module: General

Type: functional

Dependencies: REQ_USR_1

Assignee: Jibraan Chahal (Database), Sokratis Papadopoulos (GUI)

4.2 SYSTEM REQUIREMENTS

1. **Requirement ID:** REQ_SYS_1

Requirement: For secure file and text exchange encryption of password, messages and files

Creation date: 2015-05-05

Module: System

Type: Non Functional

Description: All the data sent from the client to the central database gets encrypted and saved in the database.

Assignee: Johannes Grohmann

2. **Requirement ID:** REQ_SYS_2

Requirement: Central database for user authentication information, user settings information

Creation date: 2015-05-05

Module: Database

Type: Non Functional

Description: Insert in the database. Data access permissions and retrieve data quickly

Assignee: Jibraan Chahal (Database), Sokratis Papadopoulos (GUI), Akanksha Gupta

3. **Requirement ID:** REQ_SYS_3

Requirement: Central database for messages, white papers etc

Module: Database

Type: Non Functional

Description: Insert in the database. Data access permissions and retrieve data quickly

Assignee: Gautam Vij (Database), David Alarcon Prada (GUI), Jyoti (File Transfer)

4. **Requirement ID:** REQ_SYS_4

Requirement: Connecting email and chat

Creation date: 2015-05-05

Module: System

Type: Non Functional

Description: For offline chat, based on the message status (ie. if the message is unread and the user is offline, the user should be informed via email. This needs a connection between chat and email and the access to email account.

Assignee: Johannes Grohmann