Lets Talk
swat kats production

ET1446: SOFTWARE DEVELOPMENT FOR TELECOMMUNICATION SYSTEMS

This is a project proposal for company XtremeSecurity, where we describe the product/services that we will develop for the customer. The aim of the project is to build an enterprise chat system for them, meeting their special requests.

PROJECT PROPOSAL V1.2

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PROJECT PROPOSAL

1. PREFACE

This document contains a project proposal to create a chat client called "**LetsTalk**" for XtremeSecurity. This proposal contours the project which is to be executed by team "**SWAT Kats**".

In the following we will first provide a glossary with a list of abbreviation in chapter 2. After that, the environment as well as the problem are described in section 3. Section 4 contains our solution for the described problem, while section 5 states some limitations that our product will not include. Finally, a rough time plan is given in section 6.

VERSION HISTORY OF THIS DOCUMENT:

Release v1.2 on 2015-04-27

- modified the WBS

Release v1.1 on 2015-04-20

-Project documents listed in the time plan

-FTP usage removed

-WBS updated

-Time plan changed (software development shifted to later dates)

Release v1.0 on 2015-04-13

- Initial release

2. GLOSSARY AND ABBREVIATIONS

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

- **Dev Team**: Developer Team
- **e.g**. : exempli gratia – for example
- **etc**. : et cetera
- **GUI**: Graphical User Interface
- **IP**: Internet Protocol.
- **Metadata**: information about a certain item's content
- **SQL**: Structured Query Language.
- **WBS**: Work Breakdown Structure.

3. BACKGROUND

We are required to design a communicating tool among the employees of the company XtremeSecurity and satisfy the specific needs of its travelling salesmen.

The employees will be able to communicate over an encrypted network and share binary files as needed. The main purpose is to provide our clients with the means of fast, efficient and reliable communication over the distance with the goal to help them increase their time utility.

The salesmen often require access to the latest marketing materials, white papers, company brochures and user manuals in order to showcase the products to potential customers. Proper update of new plans in the respective sector of sales is the top priority for them to present best plan to their clients. The work office of XtremeSecurity is situated in Stockholm and are supposed to travel to different destinations to meet with their clients. They are required to convince their clients over some package and may need some details from their center office. Support Engineers out on the field may also need more data from their headquarters to show it to their clients. Our product "**LetsTalk**" will resolve the issue of carrying around the updated soft copy of various packages to be shown to their clients.

4. PROPOSED SOLUTION

The project aims to provide the customer with a secure fully functional communication system. The customer for the project is a company, which wants its employees to properly communicate and work together. We will provide all the various collaboration tools that allow its employees to have secure communication from different geographic locations.

The communication involves text messages and exchange binary files of arbitrary size to access certain documents such as the latest marketing materials, white papers, company brochures and user manuals in order to showcase the products to potential customers. The customer also needs on field engineers to be able to securely download patches and service packs to resolve customer issues on location.

A central database is required to store user information metadata associated with each sent or received message, so that every user can see the date and time a message was sent, the name of the sender and recipient, if the message was read by the recipient and when it was read and can browse the history of their conversations with various peers. To provide fast service the messages should be sent to offline users as e-mails to reduce the delay. User can see a message status (read/unread, message time stamp). A call record, timestamped information about the sender and receiver of messages, their corresponding IP addresses, along with metadata such as message size, type (message or file) should be kept in a SQL database and only authorized users (administrators) should be able to access it. The customer requirement also includes an administrative role: delete a user, block and unblock a user , emergency broadcast message like some crash problem. The administrator can view statistics of records graphically as tables/graphs (GUI) available on main database server (SQL).

The project will establish a secure chat for authorized employees .The administrative access will be granted by authentication based on username/e-mail address and password. To ensure the security of confidential client data the chat messages will be encrypted. File exchange with live-status (used/remaining time for upload/download) will be provided. A user can temporarily block a user from the address book and an address book for the users will be displayed with associated status (offline, available, idle, busy: available & busy are handled manually by user, whereas offline & idle by the system).
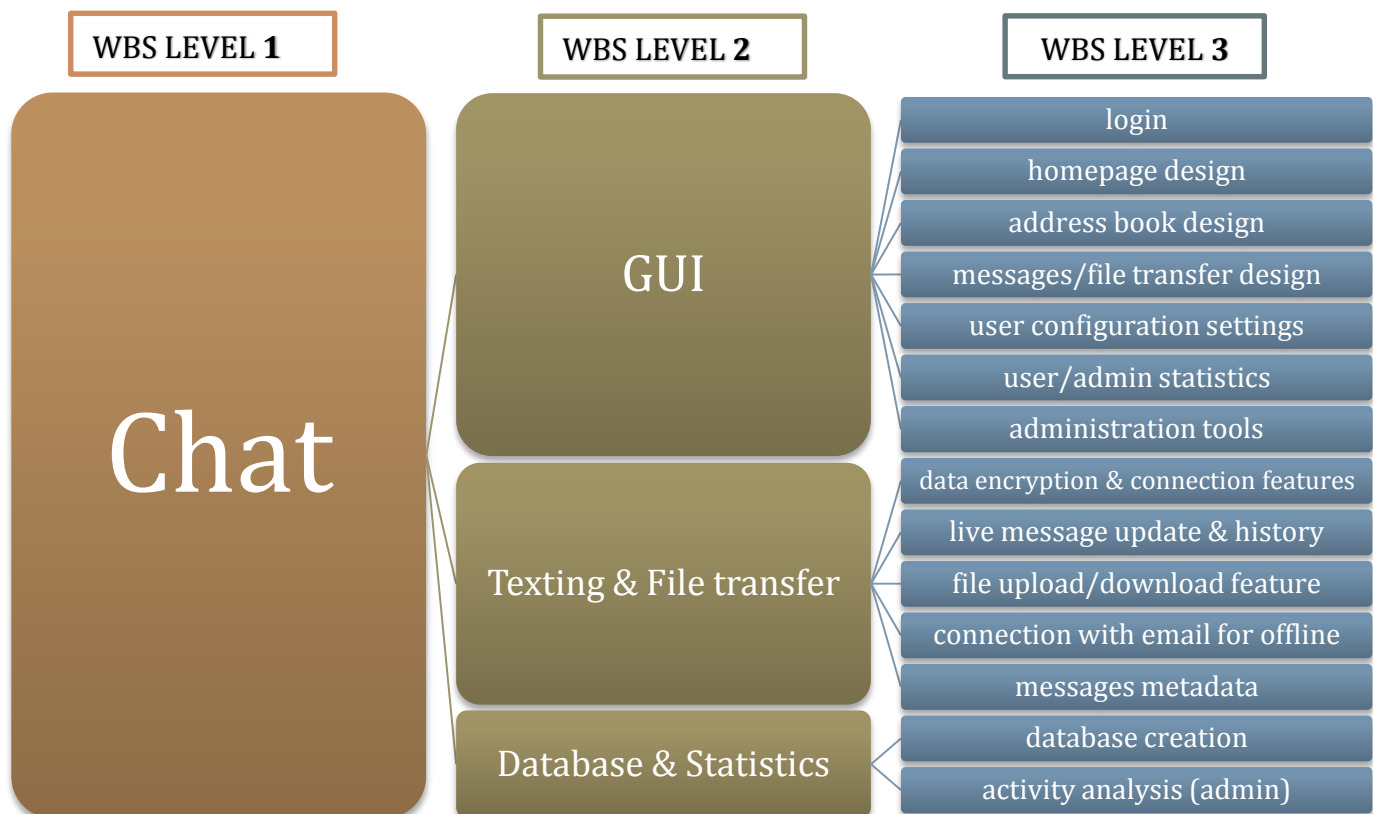
5. LIMITATIONS

Although the chat messages are sent instantaneously, this is no realtime client. Since messages and files are usually transmitted over the internet, delays of various lengths can occur. Furthermore in extreme cases (e.g. internet connection lost), messages or files can also be lost, transmission is never guaranteed and transmission time may vary.
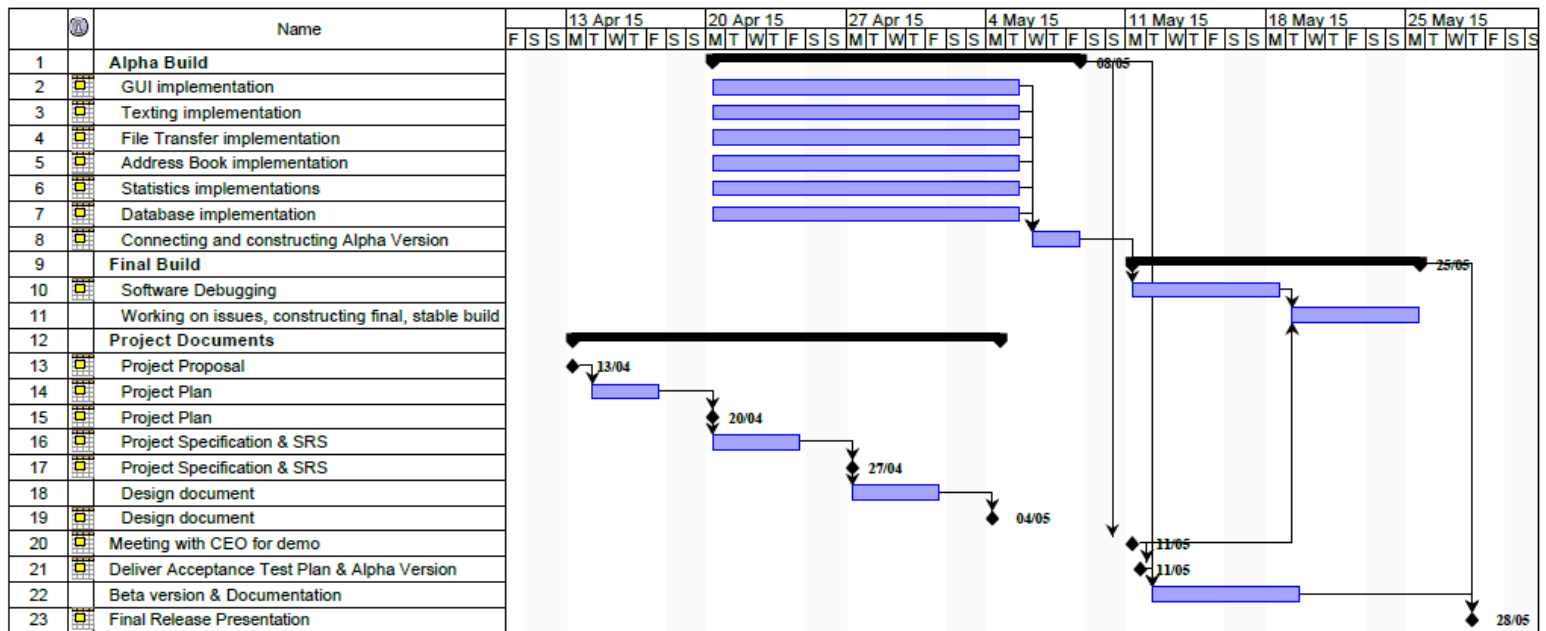
The client is not supposed to support any acoustic support or emoticons in the chat. Only private chats, are supported (no group-chats or broadcast options).

6. TIME PLAN

After describing the background, our proposed solution and its limitations it is time to present the time plan of the project. We have developed a WBS structure that shows the whole picture of the project, broken into small parts. Also, we have written down all the milestones and tollgates that this project will follow within the time budget.

WBS LEVEL 1	WBS LEVEL 2	WBS LEVEL 3
Chat	**GUI**	login
		homepage design
		address book design
		messages/file transfer design
		user configuration settings
		user/admin statistics
		administration tools
	Texting & File transfer	data encryption & connection features
		live message update & history
		file upload/download feature
		connection with email for offline
		messages metadata
	Database & Statistics	database creation
		activity analysis (admin)

MILESTONE (blue) / TOLLGATE (green)	Deliverable	Receiver	Time
Deliver initial project proposal	Project Proposal	CEO	**13 April**
Deliver updated project proposal & project plan	Project Proposal, Project Plan	CEO	**20 April**
Start line of Software development	Split of work	Dev Team	**20 April**
Deliver project specification & SRS	Project Specification & SRS	CEO/Customer	**27 April**
Deliver design document	Design Document	CEO/Customer	**4 May**
GUI implementation	GUI of Software	Dev Team	20 April - 5 May
Texting implementation	Texting of Software	Dev Team	20 April - 5 May
File Transfer implementation	File Transfer of Software	Dev Team	20 April - 5 May
Address Book implementation	Address Book of Software	Dev Team	20 April - 5 May
Statistics Implementation	Statistics of Software	Dev Team	20 April - 5 May
Database Implementation	Database of Software	Dev Team	20 April - 5 May
Connecting and constructing Alpha Version	Package of Alpha Version	Dev Team	**7 May**
Meeting with CEO for product demo, providing basic functionality of alpha version	Software	CEO	**10 May**
Deliver Acceptance Test Plan and the Alpha Version of the software	Alpha version & instructions, Acceptance Test Plan	CEO/Customer	**11 May**
Software debugging (each part is being debugged by the people responsible)	Debugging results	Dev Team, CEO/Customer	**18 May**
Beta version of our software accompanied with a full documentation	Beta version & Full documentation	CEO/Customer	**18 May**
Working on issues, constructing a stable final release	Stable software	Dev Team	**25 May**
Final Release of Chat → Final version of the program. Show to CEO/Customer. Explain the support provided.	**Final Release**	CEO/Customer	**28-May**

#	Name
1	**Alpha Build**
2	GUI implementation
3	Texting implementation
4	File Transfer implementation
5	Address Book implementation
6	Statistics implementations
7	Database implementation
8	Connecting and constructing Alpha Version
9	**Final Build**
10	Software Debugging
11	Working on issues, constructing final, stable build
12	**Project Documents**
13	Project Proposal
14	Project Plan
15	Project Plan
16	Project Specification & SRS
17	Project Specification & SRS
18	Design document
19	Design document
20	Meeting with CEO for demo
21	Deliver Acceptance Test Plan & Alpha Version
22	Beta version & Documentation
23	Final Release Presentation

7. CONCLUSION

Taking into account the analytical presentation of our proposal and the great experience of our group in developing such projects in the optimal time and quality, we believe that "SWAT Kats" can provide the best and most secure solution for your company. We will be waiting for your feedback and collaboration.

SWAT Kats