**BCIT COMP4908 Project**

**Tsunami Solutions Ltd. SafetyLine Sonim Rugged Phone Application**  
**Students:**  
John Payment – John0Payment@gmail.com

Luke Tao – luke.loka.tao@gmail.com  
Steve Lo – kashun\_lo@hotmail.com  
Aaron Lee – aaron@onefatgiraffe.com  
  
**Supervisor:**  
Aman Abdulla – aabdulla@milliways.bcit.ca  
  
**Company:** Tsunami Solutions Ltd.  
**Contact:** Gabriel Caldwell, VP Operations  
       gabriel@tsunamisolutionsltd.com  
                 604-299-5855

**Project Overview**

The SafetyLine service offered by Tsunami Solutions is a package that helps monitors the status of people who work alone in Canada and is currently available for work with Android, iPhone and BlackBerry phones. Although the Sonim XP3340 can currently be configured to work with SafetyLine software, the interface is very basic as there are no prompts or messages if the user successfully contacts SafetyLine. The purpose of this project is to make an application coded in Java ME for the Sonim phone to make this process more user friendly. This will allow Tsunami Solutions to offer a better solution for rugged phone users and tap into an additional market area.

We are building off of and improving an existing project to meet more of these goals. Ideally this will included integrating more phone-specific features.

**Expected Project Completion**

May 2013

## Project Requirements

The application should include the following features:

* The application for the Sonim XP3340 Sentinel should be made eligible to be downloadable through the Sonim "app store"
* The application should be able to toggle the "Man Down" feature of the XP3340 on and off
* The "Man Down" feature can be invoked with the XP3340 accelerometer
* The application should automatically configure the red, yellow and green buttons on the Sonim phone to speak to the SafetyLine web application
* The application should give the user a confirmation message whenever a message is sent to the SafetyLine web application
* Application should be able to report user's current location with the XP3340 GPS

**Details of what each button should do:**

* The Yellow Button
  + When the yellow button is pressed, it should display “Check-in complete” on the phone if the message was successfully sent to SafetyLine.
  + If the user is not yet logged in, it should instead login and activate the monitoring server for that user.
* Green Button
  + When the green button is held down, it should display “Signed off” on the phone if the message was successfully sent to SafetyLine.

**Project Deliverables:**

* Application source code and build instructions
* Test plans and test results
* User manual for application
* Application demo

## Stakeholders

Gabriel Caldwell (Tsunami Solutions Ltd., VP Operations) and Sonim.

## Users

Canadian law specifies that the managers must keep track of all of their workers working alone. This application will help workers report their conditions to their manager with ease.

The intended clients are users of the Tsunami Ltd. Safetyline system and Sonim ruggedized phone products.

Project Goal  
The goal of the Sonim application is to allow the user to check in to the SafetyLine service.

## Timeline

|  |  |  |  |
| --- | --- | --- | --- |
| Task Name | Duration | Start | Finish |
| **Safetyline Sonim Phone Project** | **22 days?** | **Wed 4/24/13** | **Thu 5/23/13** |
| **Project Planning** | **1 day?** | **Wed 4/24/13** | **Wed 4/24/13** |
| Meet with the client | 1 day? | Wed 4/24/13 | Wed 4/24/13 |
| Determine scope | 1 day? | Wed 4/24/13 | Wed 4/24/13 |
| Create project proposal | 1 day? | Wed 4/24/13 | Wed 4/24/13 |
| **Project Preparation** | **5 days?** | **Thu 4/25/13** | **Wed 5/1/13** |
| Create project design document | 1 day? | Thu 4/25/13 | Thu 4/25/13 |
| Estimate resources, duration | 1 day? | Fri 4/26/13 | Fri 4/26/13 |
| Develop work breakdown | 1 day | Mon 4/29/13 | Mon 4/29/13 |
| Obtain access to SafetyLine Web Application | 1 day? | Tue 4/30/13 | Tue 4/30/13 |
| Set up build environment | 1 day? | Wed 5/1/13 | Wed 5/1/13 |
| **Project Development** | **19 days?** | **Wed 4/24/13** | **Mon 5/20/13** |
| **Reconfigure phone to a working state with SafetyLine** | **2 days** | **Thu 5/2/13** | **Fri 5/3/13** |
| Configure the phone/emulator | 1 day | Thu 5/2/13 | Thu 5/2/13 |
| Test the configuration | 1 day | Fri 5/3/13 | Fri 5/3/13 |
| **Develop test application for button triggers on Sonim** | **3 days** | **Wed 4/24/13** | **Fri 4/26/13** |
| Design the application | 1 day | Wed 4/24/13 | Wed 4/24/13 |
| Code the application | 1 day | Thu 4/25/13 | Thu 4/25/13 |
| Test the application | 1 day | Fri 4/26/13 | Fri 4/26/13 |
| **Develop SafetyLine Red Button application** | **4 days?** | **Mon 4/29/13** | **Thu 5/2/13** |
| Design the application | 1 day | Mon 4/29/13 | Mon 4/29/13 |
| Code the application | 1 day | Tue 4/30/13 | Tue 4/30/13 |
| Test the application | 1 day | Wed 5/1/13 | Wed 5/1/13 |
| Consult with client | 1 day? | Thu 5/2/13 | Thu 5/2/13 |
| **Develop SafetyLine Green Button application** | **4 days?** | **Thu 5/2/13** | **Tue 5/7/13** |
| Design the application | 1 day | Thu 5/2/13 | Thu 5/2/13 |
| Code the application | 1 day | Fri 5/3/13 | Fri 5/3/13 |
| Test the application | 1 day | Mon 5/6/13 | Mon 5/6/13 |
| Consult with client | 1 day? | Tue 5/7/13 | Tue 5/7/13 |
| **Develop Yellow application on Sonim** | **4 days?** | **Tue 5/7/13** | **Fri 5/10/13** |
| Design the application | 1 day | Tue 5/7/13 | Tue 5/7/13 |
| Code the application | 1 day | Wed 5/8/13 | Wed 5/8/13 |
| Test the application | 1 day | Thu 5/9/13 | Thu 5/9/13 |
| Consult with client | 1 day? | Fri 5/10/13 | Fri 5/10/13 |
| **Develop ManDown toggle application** | **4 days?** | **Fri 5/10/13** | **Wed 5/15/13** |
| Design the application | 1 day | Fri 5/10/13 | Fri 5/10/13 |
| Code the application | 1 day | Mon 5/13/13 | Mon 5/13/13 |
| Test the application | 1 day | Tue 5/14/13 | Tue 5/14/13 |
| Consult with client | 1 day? | Wed 5/15/13 | Wed 5/15/13 |
| **Final System Test** | **3 days?** | **Thu 5/16/13** | **Mon 5/20/13** |
| Complete System Test | 1 day? | Thu 5/16/13 | Thu 5/16/13 |
| Package Source Code | 1 day? | Fri 5/17/13 | Fri 5/17/13 |
| Compile Documentation | 1 day? | Mon 5/20/13 | Mon 5/20/13 |
| **Prepare for Client Presentation** | **4 days?** | **Mon 5/20/13** | **Thu 5/23/13** |
| Create a user manual | 1 day? | Mon 5/20/13 | Mon 5/20/13 |
| Prepare slides to take client through application | 1 day? | Tue 5/21/13 | Tue 5/21/13 |
| Prepare source code to give to client | 1 day? | Wed 5/22/13 | Wed 5/22/13 |
| Get Client Signoff | 1 day? | Thu 5/23/13 | Thu 5/23/13 |

## Use Case

|  |  |
| --- | --- |
| **Use Case Name** | Create new reservation order |
| **Use Case Scenario** | User works alone |
| **Brief Description Of Use Case** | When user works alone, user presses sign in button. User checks in every set interval by pressing the check in button. When the user is done his work shift, he presses the sign out button. |
| **Actors** | Worker |
| **Related Use Cases** | Customer reserves vehicle over phone, customer reserves vehicle in-person |
| **Stakeholders** | Tsunami Ltd: to provide access to the SafetyLine service  Sonim: to provide access to the phone functions |
| **Preconditions** | Worker and Sonim phone must be present.  SafetyLine servers must be running. |
| **Postconditions** | Worker logged in to SafetyLine server (checked in and out). |
| ***Activities Flow*** | ***Actor Action***   1. Worker inputs login credentials 2. Worker presses sign in button 3. Worker presses check in button at predetermined intervals 4. Worker presses sign out button |
| **Exception Conditions** | 3.1 If worker does not check in before interval, SafetyLine will send notifications to emergency contacts |