

Andro Personal Safety

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Abstract—The personal security is one of major problem in India and around the world .There have been many suggestions to improve the safety of individuals such as Emergency calls, 24x7 helpline etc. In the recent years, 80% of people are dealing with iPhone and Smartphone. So, this paper aims at developing an application that improves the personal security of a Smartphone user under attack. As soon as the victim activates this application on their phone it gathers the information of current location of the victim and starts the video recording with sound. The location and video is sent to the group already assigned by SMS. This system is designed by taking into consideration application that uses services of camera , SMS , contacts , GPS The Android platform is chosen for writing this application as it has the biggest market presence in the world and is an open source technology having very good developer community.

Keywords-Android, GPS, Google maps, SMS

I. INTRODUCTION

Mobile Multimedia has become an integral part of our survival. A variety of multimedia services like messaging, social networks, email, mobile payment and transactions, video and audio streaming or mobile video conferencing has already shaped the expectations towards current mobile devices, infrastructure, and services. In last five years, mobile multimedia has become the conventional standard, focused by developments in end-user devices, radio networks, and backend services. Mobile even helps in security and privacy issues.

In the very start of daily routine when newspaper is read, you always see various news of criminal cases related mostly to women's and children security are observed. Situation is becoming worse and hence the security of every person is a prime concern now-a-days. Many NGOs and legal authorities are disseminating few helpful steps to control these criminal cases to make the safer India for the women as well as for individual. In the mission to control rapist attacks some steps are going in vain but work is quiet continuing. If you calculate the ratio of criminal cases we find the number of rapist attacks to be decreased. All are trying to control this situation from their perspective. Smartphone companies have also decided to take some useful and helpful steps in this direction.

Mobile has become an important part of every individual's life in these days and all of them nowadays tend to be frequent users of Smartphone. It would be worthy enough to build up certain applications for the self-preservation of every individual in order to detract the various cases such as gang rapes, kidnapping cases etc. It seems, time has come to leave and high fixes behind. By the help of such apps, the person who is in problem can inform their friends or family members very quickly that he is in trouble and these apps will send a quick alert to his/her well wishers that the individual is in problem. This app will also disclose the place or location where the victim is present currently and

suffering from what kind of problem. The relatives can thus reach the related place very easily and help him or her to get out from such problem.

II. LITERATURE SURVEY

This section provide us the detailed description of already existing apps based on this personal safety using android. Many applications already exist with their own pros and cons.

Scream Alarm: [1] In this, KarunaChandwani suggests that if you press the button on the screen, a loud scream in a woman's voice starts For stopping the process the button has to be pushed again. The woman in danger has to just press the android phones button that produces a scream in the offender's ear. Where this app scores, it might catalyze some help from the neighborhood or damage the attacker's ear, and may even prevent a crime from happening. However, if there is no one in the surrounding then the screaming will be of no use.

Google Latitude: [1] is a tracking tool. It shows you where your family members are present geographically, so that you can easily keep in touch with them. To use it, you need to log in to Google Latitude and start adding your family members via their Gmail contacts. When they accept, you can see their locations on Google Map of your phone. Their locations will be at the background even when the app is closed or when your Smartphone is locked. Android users have a widget which they can setup. You can also get the app to check you automatically at a preset place. As this is not restricted to family members you can use it to check just about anyone's whereabouts, provided they are on Google Latitude. This application shows your location if and only if we accept the request through Gmail.

YWCA Safety Alert: [1] Another Android app with a sound alarm! It in addition to Scream Alarm sends SMS, e-mail or calls to the desired contacts. The app offers features like calendar memos, to-do lists and reminders. It is more than just a distress call utility as it also offers interesting reads for women. There have more than a few thousand takers for this app. As it is an app with sound alarm, the attacker gets alerted and may take away the mobile from the victim.

Life 360 Family locator: It was founded by Chris hulls and Alex Haro. [1] Life 360 family locator is like locating cabs. It uses GPS tracking technology to tract the location of your family members. Its basic function is to send SOS messages to the chosen numbers. It saves your most commonly visited locations and receives automatic alerts when family members come to or go from those areas. It keeps you updated on sex offenders and recent crimes in your neighborhood. Life 360 allows users to create geofences that alert them when another enters or leaves another location.

III. PROPOSED SYSTEM

This section describes about the actual working of the proposed system. As depicted in Figure 1, the user first launches the application on their Smartphone. Further, he/she will perform the initial setting of the application. In add contact, the multiple contacts of single person are automatically fetched. When the user uses the application at that instance SMS will be sent to the selected persons in the group using GPS location. SMS template of message like "I am in danger please help me" along with the hyperlink of the victims current location is sent. This hyperlink opens the Google map or Web browser. GPS location is tracked by the service provider using GPS location tracker. Whenever user clicks on video button, the camera is activated and after 10 minute the video is automatically stored in mobile storage.

The existing applications have certain limitations such as:

1. Only one contact number of same name can be added.
2. Message delivered notification is not acquired.

The above mentioned drawbacks are overcome in the proposed system by enabling multiple contact system addition for same name contacts and message delivery notification.

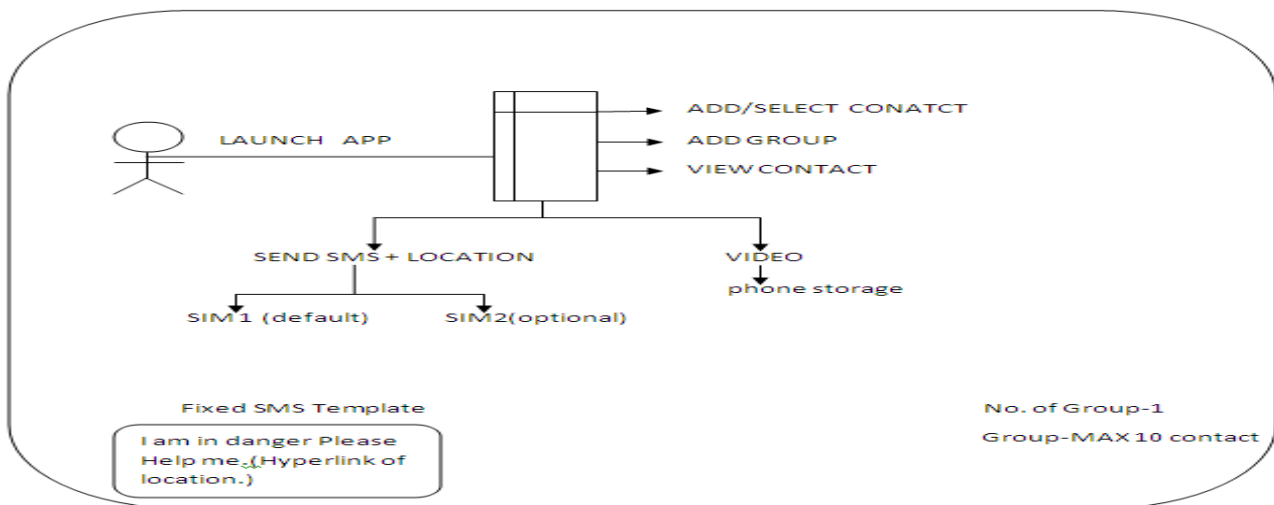


Figure 1: Working of andro personal safety

IV. SYSTEM IMPLEMENTATION

This position of a device or person having this android application can be tracked using the procedure as laid below:

GPS in android: In the XML file the properties are to be updated as elaborated below.:

Uses permission:

The permission for any operations to be performed by the user is to be firstly set in the mobile device.

The permission provided by the android system is manifest permission. These must be declared the manifest.xml using one or more <permission> tags.

Add contacts

By setting the permission given below one can add contacts to this application and can even a group of maximum 10 and minimum 2 persons at a time.

```
<uses-permission android:name="android.permission.READ_CONTACTS" />
```

Global Positioning System(GPS) setting

For accessing the GPS locator, you can set the below permission and can trace the current location of user.

```
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
```

```
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />
```

Send SMS

This will help you to send the message to the receiver side.

```
<uses-permission android:name="android.permission.SEND_SMS"></uses-permission>
```

Record video

The video can be recorded using.<uses-permission android:name="android.permission.CAMERA" />

```
<uses-permission android:name="android.permission.RECORD_AUDIO" />
```

```
<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE" />
```

```
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
```

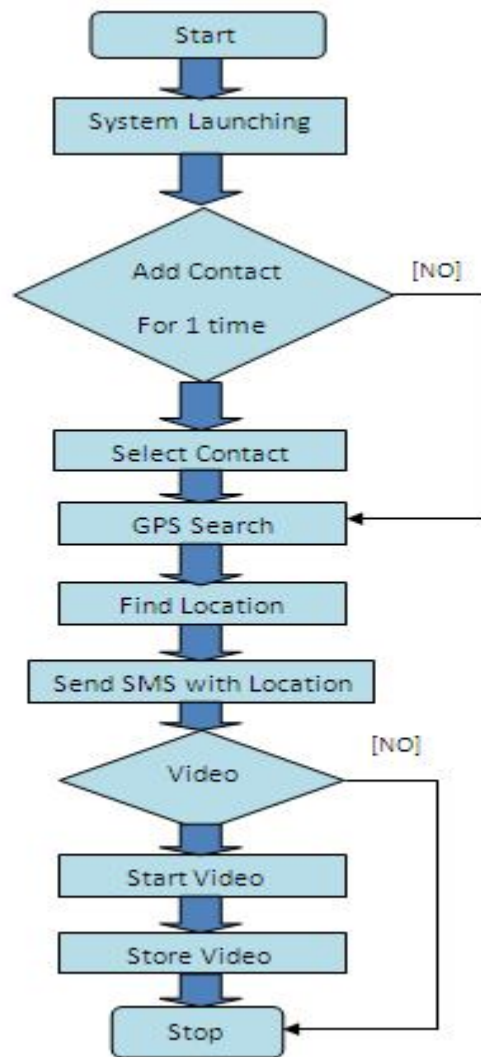


Figure 2: Flowchart of Andro Personal Safety

V. EMPIRICAL RESULTS

The main aim of system designed, is to release the people from danger situations making the use of GPS locator. In this system, when the person is in trouble, it sends the message to the group & if the victim wants to record the video, he/she can do it which is saved in the internal memory of the device as a proof. The location is also identified using GPS.

Figure 2 shows the actual flow of the proposed system. The receiver at the destination receives message about the problem of the victim as well as its location.

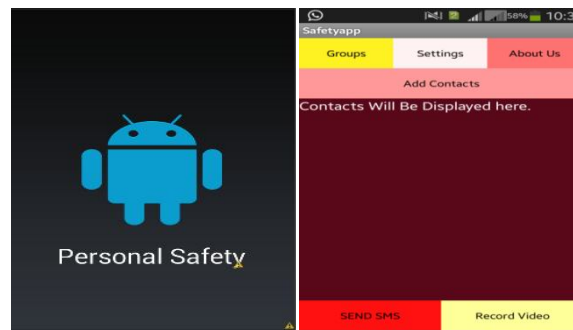


Figure 3(a): Screenshot of application

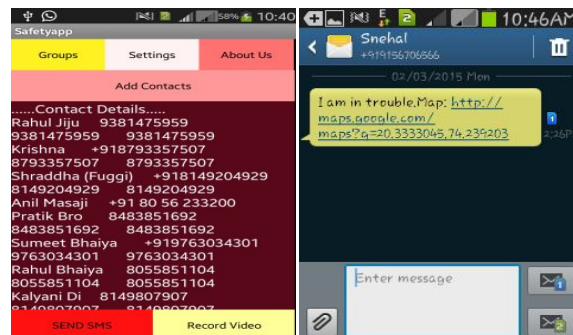


Figure 3(b): Screenshot of application

As shown in fig 3(a), In the Group tab, we can form group of selected contacts which are added to send ansms in emergency.

The selected contacts can be grouped by clicking on 'Add Contacts' Tab. The 'Record Video' tab when clicked will start video recording and automatically stop recording after 10 minutes, if not stopped. The video gets stored in the internal memory.

The format of the message sent as shown in 3(b) is message,"Location". The message can be any template as well as location is in the form of GPS location tracked by Google maps.

CONCLUSION

Due to the faster and major users of android the proposed system provides a possible and nobel solution for the personal security. Two major functionalities that include in the system are message sending along with GPS location information of the victim, and the video clip. The other aspects that include are multiple contact addition of a same person in the group list and message delivery notification.

This system will be an obvious elucidation for any person to dwell a safe and secure life. However, a more faster approach can be built by sending the message directly on a click of power on/off button, So that the time required for an victim to click on the app & do the process may be reduced.

REFERENCES

- [1] Karuna chandwani, International Business Times Sunday ,28september,2014
- [2] Maps for mobile. "Latitude will be retired". Support.google.com. Retrieved July 10, 2013.
- [3] Fitchard, Kevin (3 July 2013). "Life360's App Knows Where Your Children Are". Bloomberg BusinessWeek. Retrieved 22 October 2013.
- [4] Wei-Meng Lee, "Beginning Android Application development", Wrox Programmer.

