

Android Safety Application

Manas Srivastava¹

¹Student, School of Computing Science, Galgotias University

Abstract - This paper projects a research on application dedicated to meet users need of overall security which includes wellbeing of both user and its device. Most of the application present in the market focus on only one aspect of security i.e. either they concentrate on device security or user's security. This research throws light on the notion that security of both user and device at the same time is a crucial aspect in providing application based security service and both the aspect should be met carefully. Failing to meet any one of the described feature can and will result in hazardous security breach and loss as per so.

Key Words: Overall Security, Android Safety, Application based Security.

1. INTRODUCTION

Android Safety Application covers security profile of both

1. Users physical Security
2. Users device security

Both the aspects of security are analogous to each other and should be viewed in same context rather focusing on each of the issue separately.

In order to provide physical security application focuses on these aspects

1. GPS tracking of user's device to extract his/her location
2. Maintaining an emergency call list comprising users trusted contacts
3. Speed dial option to reach nearby security profile i.e. POLICE, MEDICAL HELP etc.
4. Sending detailed notification to emergency numbers including location and details.

To provide device security it focuses on

1. Remote ringer and locking feature
2. Remotely accessing the GPS to enable device location.
3. Data security by encryption of hard drive.

1.1 LITERATURE REVIEW

Previous existing system do have a feature of phone tracking but they mostly do so by IMEI tracking of headset which have various sets of drawback like phone should be connected to network tower and location extracted is not

that precise. On the other hand, GPS tracking has no such limitations as such.

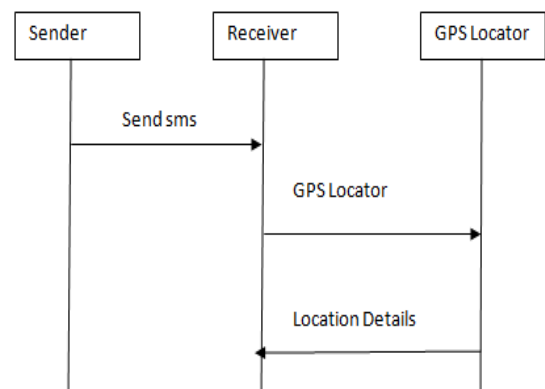
Remote Encryption of device is a new feature which focuses on data security of user a crucial point of security. Not many application focus on this.

And providing both user and device security on single platform is a unique point of application provided which is not covered in any of the pre-existing security applications.

Ringer helps to locate the device if it is lost in any neighboring environment by using sound as a guiding medium.

1.2 PROPOSED METHODOLOGY

To represent the working of GPS tracking in application a proposed state diagram depicts the situation when feature is needed to be used



2. IMPLIMENTATION

Application follows a predefined set of algorithm once a trigger button is pressed. Trigger button is a user map able button which can be used to activate the security protocol.

Following set of algorithm is then followed during a physical emergency.

Application fetches contacts from emergency contact list and creates a group notification to be send on these application.

Notification includes user's precise location, device status nearby available security profile details.

Application then forwards this notification to all emergency contact list numbers.

Table -1:

SERIAL NO.	COMMAND	FEATURE
1.	SOS	SENDS EMERGENCY NOTIFICATION TO CONTACTS
2.	CONTACT SECURITY PROFILE	Displays contact list of nearby police personnel and stations
3.	CONTACT MEDICAL PROFILE	Displays contacts of nearby medical facilities available
4.	MAINTAIN EMERGENCY LIST	Provide option to maintain and edit emergency list
5.	SOS CALL	Make call to any emergency list number if possible.

3. CONCLUSIONS

Security providing domain demands precision of utmost level even a single mistake can result into horrendous mishappenings and also security details provided can never focus on a single aspect neglecting other horizons will put the existing work in vein.

So understanding every and all vulnerable part of profile and covering it in a single security profile is the work this application focuses on.

Although it is impossible to guarantee 100% security but trying to cover all visible threat sources is the least we can do as a provider.

FUTURE WORK

As already said providing a fool proof security detail is myth there always will be a shortcoming but the focus is to make that shortcoming unapproachable and invisible.

In future reference

1. incorporate emergency vehicle support at the precise user location.

Using IOT to communicate with surrounding to better handle the situation.

REFERENCES

1. https://en.wikipedia.org/wiki/Mobile_security
2. [https://en.wikipedia.org/wiki/Android_\(operating_system\)](https://en.wikipedia.org/wiki/Android_(operating_system))
3. MODERN WIRELESS COMMUNICATIONS by PEARSON
4. https://books.google.co.in/books/about/Understanding_GPS.html?id=-sXPuOW7ggC
5. <https://developer.android.com/guide>