

# Mobile Tracking System Using Short Messaging Service

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**Abstract** - In this project, we have developed a security cum lifesaving application for the Android mobile devices. This project provides the user with various facilities, which can be availed by him/her via any ordinary phone, which has the SMS(messaging) facility. The application provides various security and anti-theft features for the android device. The application, in itself, is also very much secure. As power consumption has always been a major issue with the Android mobiles, so we also kept in mind the power constraints of the device and tried to make the application as efficient and lightweight as possible.

## 1. INTRODUCTION

Nowadays, usage of mobile has become a vital part of day-to-day activities of people. We can refer the current time as the era of Smartphones. Suppressing all other traditional communication purpose, smartphones are now at the peak of popularity in their usage of accessing the internet which includes mail access, social networking, mobile shopping, mobile banking etc.

Smartphones contains critical and sensitive data of user like automated call records, photos, videos and saved passwords of Webpages. So losing the smartphone means a very high amount of irrecoverable data loss which may not be affordable in many cases. This claims the need of an intelligent application to be run in mobile to eradicate

mobile theft and track the mobile even after change of the SIM also. The major objectives of the research work have identifying thefts mobile number and to get that smartphone. Locate the mobile and track it. The mobile location can be tracked using the proposed approach.

The aim of the apps is to find out the stolen smartphone by sending short SMS that contain the new SIM number that is used in stolen smartphone by the theft instead of old SIM number that was used by the owner of the smartphone. The whole work of the apps is described in the methodology term. Here users of the apps firstly create an individual account with user

name and password. In the individual account a user inserts the mobile number that is used for SMS sending, which is sent from the stolen smartphone. User can also update or delete the mobile number. This apps help to find out the stolen device or smartphone without accessing the internet.

## 2. LITERATURE SURVEY

There are applications available in Android market, which cater to the issue of security of Android mobile devices. Examples of such applications are MobileProtect Pro1 by KloudData, PhoneLocator Pro etc. But, these applications are highly UI oriented, thus consuming a lot of Android battery. They require user registration, thus adding an extra burden for the users. Only one password is allowed in their case, which can be only changed if you have the access to the application on your Android mobile device. Moreover, the messages related to the application are relayed to inbox and sms notification, so an attacker can easily misuse the application. Also, in these applications, any body can uninstall the application, no protection is provided for this. Most of the above-mentioned systems, provide dedicate solutions using tracking methods to monitor a mobile device. But by just enabling the cell phones with GPS system and retrieving the information about the new SIM would be insufficient to track the Smartphone.

Hence came the idea of developing SAPt - A Stolen Android Phone Tracking application, an efficient and unique application with few more features which help in controlling the lost android Smart phone and retrieving it back. This application uses location-based services (LBs) like GPS or global system for mobile (GSM) network to track a mobile device.

## 3. PROPOSED SYSTEM

We proposed two methods to track location and catch the theft and give return the stolen smartphone to the user. One is the basic method and other one is advanced. The basic method just only include the mobile tracker in which whenever someone changes

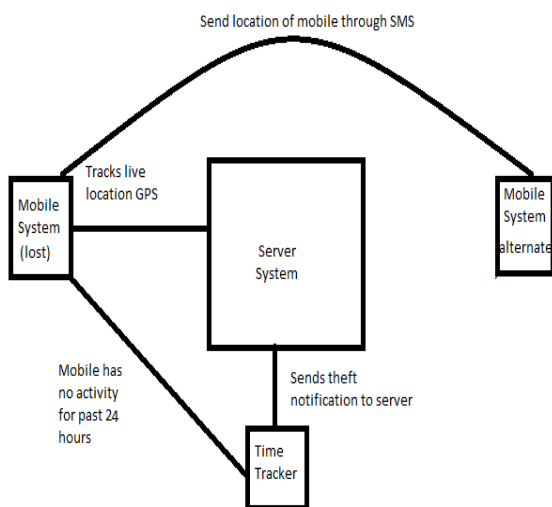
the SIM the user will be notified about thief's mobile number via SMS messages sent on mobile numbers stored in mobile tracker.

In the first basic method, we can suggest to develop an android application using the SIM serial number. The SIM serial number is unique, so it will be better to develop an application using SIM serial number. In the application we must insert a number to get notification from the stolen mobile. Sending SMS from stolen smartphone to your predefined phone number. When the theft change the SIM card by his own SIM card then the previous SIM serial number will not match with present serial number, so we can give a condition when this mismatch will occur then a notification will be send to the user's predefined SIM number from the theft number. Thus the user can know number the theft phone number.

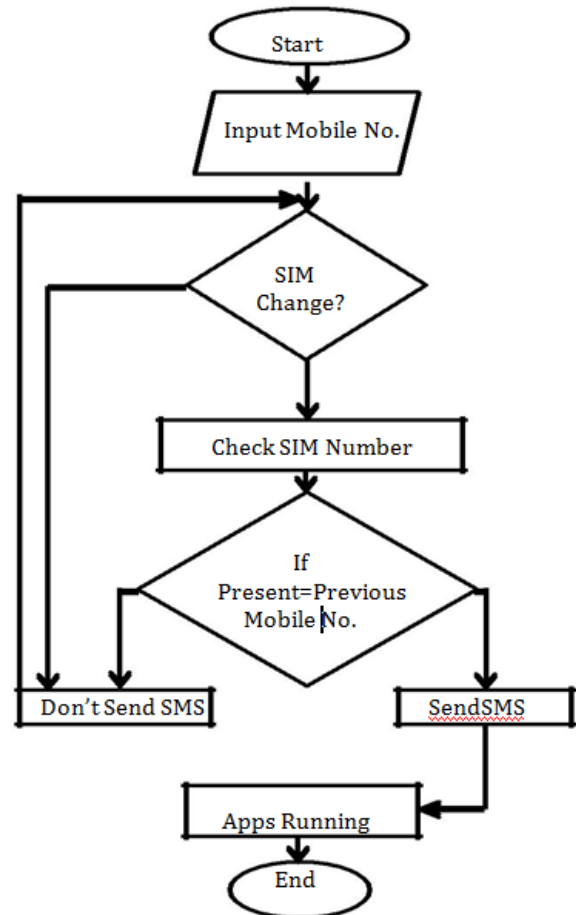
In the advanced method, we can suggest to develop an application by adding GPS system with the first method. We are hoping for advancement of technology in future so that tracing the exact location of any mobile number is possible. GPS (Global positioning system) is a great boon to anyone who has the need to navigate either great or small distances. GPS receiver help us to navigate back to a starting point or other predetermined location without the use of maps or any other equipment.

#### 4. ARCHITECHTURE

##### 1) Software Block Diagram:



##### 2) Flowchart:



#### 5) CONCLUSION

This paper has discussed the design of mobile tracking system using SMS. we propose an efficient model to track the lost/misplaced Android phone. The application is expected to perform the defined action based upon the incoming SMS send from a different mobile in a predefined format which will help the end user to locate the lost mobile.

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