

# Advancement in Android Authentication System Using Direct Significance Service

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**Abstract** - In Today's fast life everyone wants to know about their kids, retired parents and dear ones are safe. Every smart phone having SMS and GPS facility. Positioning of the Smart Phone uses two technologies via General Packet Radio Service (GPRS) and Global Positioning System (GPS). In this paper, an utility application development using android to be familiar with family members and neighbor persons location using smart phone is developed. The main objective of this paper is to design and implement a creative and interactive Direct Significance Service that helps users to locate the position and receive alerts which are scheduled based on time and location. The user location can be shared using a smart phone which is equipped with an inbuilt GPS receiver or smart phone internet connectivity which is useful for finding out the location of device. The location updates periodically share the current location by the interval time. The system shares the location when the user moves to unknown location or different location. This system automatically intimate the registered contacts when the Smart Phone is tried with wrong password, swiping wrong pattern or any other to misuse activities like Smart Phone loss or robbed.

**Key Words:** Smart Phone, GPRS, GPS, DSS, Location Identifier.

## 1. INTRODUCTION

Global Positioning satellite (GPS) is one of the major roles of smart-phone and playing important part in finding the questions such as Where am I...? Where is the nearest ...?. Where is my...? How do I get there?. The above mentioned questions are very normal in all of our day today life and the answers are for these are received from smart phones in our hand. The primary question in smart phone is when we lost the phone then our phones have to function what we assigned to do. These utility application works with

the basic SMS service and GPS service which is commonly available in every smart phone. This is mainly used by family members especially parents who want to keep track of their children location which can be provide as when it is demanded. The use of this utility phone is to track our smart phone when it is lost or robbed. In this case system automatically sends the current location via the phone. This application fetch current latitude and longitude of device and store in application database. The user can able to store limited contacts to share the Smart Phone location. The user can edit the contact list to update, add and delete. The application is retrieving the position based on time scheduled. The application share the location when the user Smart Phone reached the unknown places, This Analysis is also based on the available locations that are stored in the application database. In case the user trying wrong pattern or password to open the smart phone, then this utility application will also intimate the location via SMS or E-mail. This application will share the location when the Smart Phone is turned-on.

## 2. EXISTING SYSTEM

The architecture of the existing smart phone tracking system is based on client server approach. Smart Phone device's application side that is client side GPS receiver fetches the GPS location, after calculating the exact location it further creates a GPRS packet along with the location details a running on the Android based smart phone sends this GPRS packet

to the server. Server stores packet information and at server computer displays the map along with location to track the human.

The limitation of available system is there must be continuous internet connectivity required at smart phone device so that the system works correctly. The limitation is in the place reminder system of the available system in which the Android OS which give reminder only to the locations that user want already visit or stored in the database. The Location Based Services(LBS) are smart phone applications that depend on the location of the smart phone device in which the server calculates the positions, then this system also requires client and server communication with internet access to find the position.

### 3. PROPOSED SYSTEM

Fig.3.1. shows the overall architecture of the proposed system. The Application installed in smart phone which helps in retrieving the Latitude and Longitude from GPS. The Application stores the Position by the constraints specified by means of time interval as said in the system algorithm. The application shares the location by using basic SMS and E-mail availed in the smart phone to specified contacts stored in the application. Through the SMS and E-mail the receiver will contact the stored database of the smart phone then the application can know the position of sender from the smart phone and laptop by means of Google map.

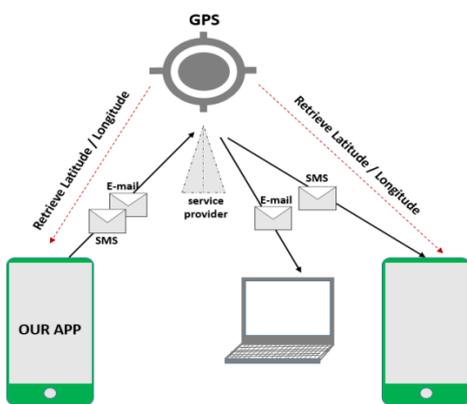


Fig.3.1. Architecture of Proposed System

### 3.1 Algorithm

The Application run when the smart phone is turned-on or trying wrong pattern and invalid password to open Smart Phone then the utility application send the current Positions Latitude and Longitude to the registered mail ID or Smart Phone number.

Every 5 hours the application gets store the current position and compares the position to last three days known position. If the position is not matched then also the application share the position for every 1 hour till the smart phone comeback to known position.

If the user not used the smart phone for Last 6 hours (except 12AM to 6PM) then the Application also shares the location for every 1 hour. This is most advanced section in securing the smart phones.

### 3.2 Utility of Application

This Application use basic SMS services and GPS services which is commonly enabled in every smart phones. The Main purpose of this utility application is for the family member especially parents who need to keep track of their children location which can be need as an when it is demanded.

Sending location information of device to synchronized number as an alert when SIM number in particular device is changed would be the future enhancement for the system. This application is developed using tool Android Studio for android developer and android sdk.

Application use SQLite database for keep information about the location and Account detail. For display the location, this Application uses Google play service and MAP key for Establish Google MAP Tool.

### 4. Experimental Results

Fig.3.2. shows how the contacts are added to the database using utility application and Fig.3.3 shows the usage of the direct significance service in secure procedure.

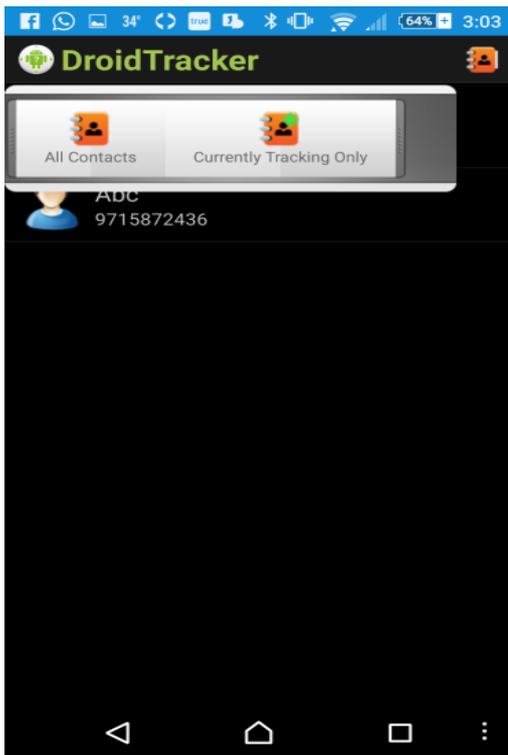


Fig.3.2. Database using utility SQL Lite

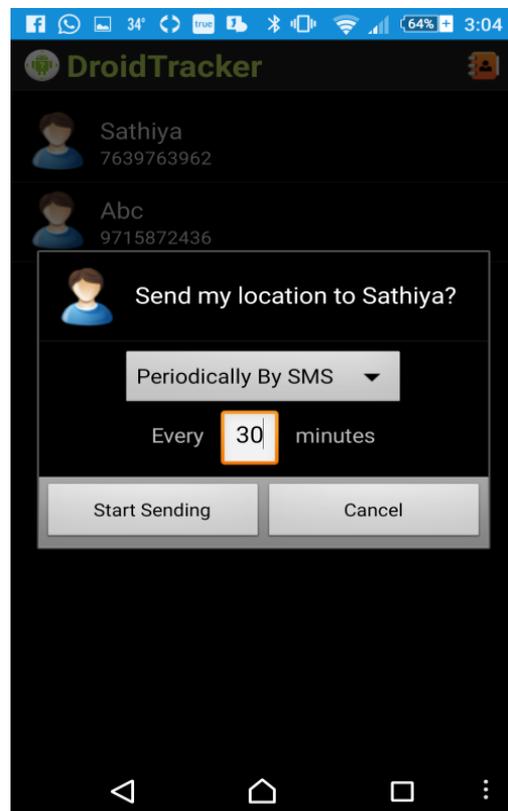


Fig.3.3. Output of Direct Significance Service

## 5. Conclusion and Future Work

In absence of user equipment's such as car, bike and smart phone have to be monitored and controlled by the proposed application in secured and convenient manner. In case of tracking the smart phone loss, This application will help to find and monitor the location of smart phone and also parents should identify their children movements with location wise. The enhancement of this application in future is at the receiver side with able to see locations on Google map along with the receiver getting the message. Apply for small area in the following manner First, give the limited text entry mechanisms available on smart phone a way of associating audio messages or pictures with reminders could offer greater convenience encouraging unique and more opportunistic use. Second, it is more appropriate to have reminders based on location and time as well as date. As an added feature, priority can be assigned to the reminders. Finally to naturally support the use of recurring reminders, we propose a change to the user interface.

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