

Smartphone Tracking Application Using Context Information

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ABSTRACT

In this paper, the smartphone are tracked based on the LBS (location based service) using context information. This application is used to track the location of the lost or stolen mobile. Here we design to implement both the logic of finding the theft phone with SIM card and theft phone with changed SIM card. In this application, the thief photo was captured automatically by camera initiation and also voice is recorded both are upload in the server. Location, Photo, Voice sends as an SMS alert of the original user.

Keywords: Smartphone, GPS, Location based service, SIM card.

I. INTRODUCTION

Nowadays, location privacy has become an important topic largely due to the GPS devices, mobile network [1].The Wireless device used for beneficial reasons has been analysed by several researchers [2].Device free passive (DFP) localization [3] DFP system is able to detect, track and identify entities that do not carry any device nor participate actively in the localization process. Tracking the location of a person or an object behind the wall, without a need for an electronic device attaches to the target using radio tomography imaging [4].A mobile without GPS can also send the location information to the operator by radio signal transmission of the base station [5].

Many electronic gadgets such as smart Phones, laptop, wristwatches, TVs etc. use the various sensors like accelerometer, GPS receivers, gyroscopes etc. Availability of internet made localization easier and more effective. Since smart phones the variety of sensors like accelerometer, compass etc. It is possible to track the system not only the location aware but also context aware [6].Context is used to track if the user is moving or if he /she is taking turns etc.. Gathering this information is helping us to track a better way. For example: if the phone is stolen, it could be easy to identify the exact location of the device a future time instant. If the device is static, there is no need to sending the information to the user continuously. The context

sensing depends upon the various conditions like if the device is carried by the user or holding the device in hand.

In this paper, tracking the smartphone by creating an application, and that Application will show the exact location of the device, which is stolen and captured the Photo of the thief, the voice is recorded automatically and upload to the server. It is sent as an SMS or an EMAIL alert to an original user.

In the remainder of the paper is organized as follows: In section two implementation of the project was discussed. In section three implementation results are discussed. Finally followed by a conclusion.

II. METHODS AND MATERIAL

The objective is to design a smart phone that is used to track the location based upon the context tracking service. An application is created that is helping us to identify the lost or stolen smart phones. This is implemented using java in android SDK. Proposed system, an android application is deployed with an initial registration of an alternate mobile number if the phone is stolen original user will send the SMS from the alternate mobile number to the original mobile number, The application will track the android phone and verify the location.it is possible only the SIM card is not changed mobile client is an android application which is

created and install in to an user android mobile phone. The first page of an application is a user registration process. This process is consisting of MSIno, IMEI no, EMAIL and Password. IMSI no is used to identify the user of a cellular network and is a unique identification associated with all cellular networks. It is stored as a 64 bit field.

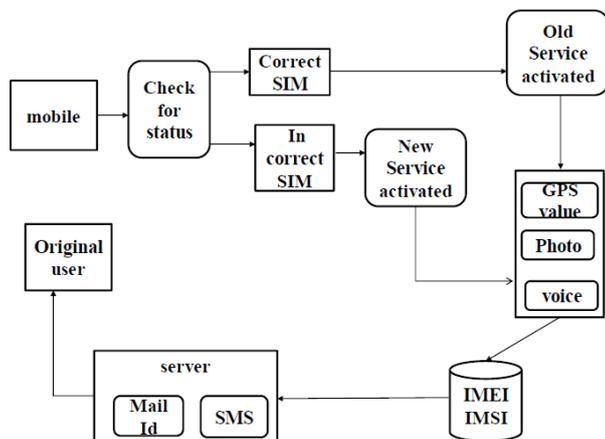


Figure 1. System Architecture Diagram

It is also used for acquiring other details of the mobile in the home location register (HLR) or as locally copied in the visitor location register. IMEI no is the unique serial number of every GSM mobile cell phone. The IMEI number is used by networks to identify valid phones and block stolen or blacklisted phones from accessing the network. Once the mobile application is created, it will generate an APK files. These APK files are installed in mobile phones as an application.

Using this APK user will register with server with alternate EMAIL id. The server is application is used to communicate with mobile client by GPRS and GPS.

Global Positioning System (GPS) is a space-based navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. The system provides critical capabilities to military, civil, and commercial users around the world. Using the phone IMSI number the mobile is tracked through the application. The person tries to change the SIM card means, application will identify the IMSI no, then the camera is initiated and takes the photo of the person and uploaded in the server and also the new voice is recorded for

better identification of that person. Both the audio and the photo send as an EMAIL to an original user. It is also send as a text message of an original user alternative mobile number. If the original user click the link means, then he/she will able see the photo and

III. RESULT AND DISCUSSION

In this paper, Location service is implemented that is used to track the location of the stolen device. The location is sensed through the accelerometer not by using hungry GPS. Context based updates are send on the base of the context of the device. Performance is measured and the result is found up to the mark. The 3 proposed systems have less power consumption, reliable and highly secure.

IV. FUTURE ENHANCEMENT

Location positioning technologies, query processing, Cache Management Application can be develop on android platform of open handset alliance led by Google. Google stimulated environment and standard development kit for developing android application, we choose android as it is parallel to IOS in terms of facilities it provide and it is also open source just like a GPS device its location will also be updated as soon as user changes his/her position. LBS is use to fine the location of the school, gas filling station, hospitals and other interest of the user within the range.

V. REFERENCES

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