PDA Theft Detection & Continuous Tracking With User Profile Recording Using Android

Authors

Vijayanand K¹, Ravikumar K²

¹Student, Dept. of CSE., RRASE College of Engineering, Chennai, India
²Head of the Department, Dept. of CSE., RRASE College of Engineering, Chennai, India

Email- kvijayanand92@gmail.com

ABSTRACT:

Lots of Applications are developed to track a Smart phone but still it is not that comfort in finding the exactly. We have to manually report to the customer of the Mobile to block the IMEI Number of the Phone. Android Application is deployed with initial registration of Alternative Mobile number. If the phone is stolen, Original user will send SMS through a Normal phone or through an Application deployed in another Android phone to Track and verify the location of the theft Mobile. If the Thief changes the SIM card immediately Location details are sent to the alternative Phone number of the original User. Both the logic of tracking the Theft Phone with SIM Card & Theft Phone with changed SIM Card is tracked continuously. Thief Photo is captured by automatic Camera Initiation and Voice is recorded and uploaded in the server. Both the Location and Voice are sent as SMS Alert to the Alternative Mobile number of the Original User.

Keywords: IMEI, IMSI

I. INTRODUCTION

Recently, location privacy has become a topic of concern largely due to the proliferation of GPS devices, web location services, WLAN, and cell ID based positioning technologies. The ability to locate a wireless device for beneficial reasons has been looked into by several researchers. Localization can be passive or active. In passive localization, the users do not carry any device (having radiofrequency transmitter) but in active localization the users carry devices. In active localization, users may know about their or others’ (depending on the application and privacy policy)location with the help of some basic components like mobile devices, mobile communication network, service provider like the Global Positioning Service (GPS) and Geographical Information System (GIS) etc. Even a cell phone without a GPS unit can send location information to the operator by using radio signal transmission of the base station. Different localization principles that may be applied to gain position information with respect to an object to be tracked include: Network-based: In this category all the necessary measurements are performed by the network (by one or several base stations). The measurements are usually sent to a common location Centre that is part of the core network. This center takes over the final computation of the terminals’ positions. Terminal-based: In the terminal-based localization approach, the terminal accounts for position determination. Since it consumes significant battery power and needs proper equipment, it is only partly applicable for legacy terminals. Network-assisted: Here the final calculation of the terminal’s position is taken over by the terminal. However possible assistance data can be sent by the network. This can be done either on request (pull) or in a push-manner. Terminal-assisted: This is a hybrid implementation of the other methods where the terminal
measures reference signals of incoming base stations and provides feedback reports to the network. The final position computation takes place in a central location center within the network. Availability of a multitude of devices such as smart phones, tablets, laptops, net books, wrist watches, TVs, etc. that can utilize various sensors like accelerometers, temperature gauges, GPS receivers, gyroscopes, etc. and availability of wireless Internet have made localization easier and more effective. Since smart handhelds have a variety of sensors like accelerometer, compass, gyro etc., it is possible to make tracking systems not only location aware but also context aware.

Location is a part of context but context also encompasses conditions like if the user is moving, if he is taking turns etc. Gathering context helps to better track an individual especially for surveillance. For instance, if the device is stolen, it would be easy to predict the exact location of the device at some future time instant if the context (including location) of the device is known at the current time instant. Moreover context information can be utilized to minimize network data transfer for these kinds of applications. For example, if the device is static or moving slowly there is no need of sending updates to the tracker device frequently. However effectiveness of context sensing depends on various other conditions like if the user is carrying the device in his/her pocket or holding the device in hand etc.

Consequently, a service for context tracking of Smart handheld devices is proposed that takes into account both location of the device and user context for better surveillance. This technique can be applied for tracking location of individuals, lost or stolen devices etc. in a user friendly manner that saves considerable power. Also by comparing contexts of friends, nearest neighbour may be identified when needed. This application will help us in such a different scenario.

II. PROBLEM DEFINITION

Both the logic of tracking the Theft Phone with SIM Card & Theft Phone with changed SIM Card is tracked continuously. Thief Photo is captured by automatic Camera Initiation and Voice is recorded and uploaded in the server. Both the Location and Voice are sent as SMS Alert to the Alternative Mobile number of the Original User.

III. ARCHITECTURE DIAGRAM

In this paper we can implement and design of the mobile theft detection. we are implementing both the logic of tracking the Theft Phone with changed SIM Card & not changed SIM card. Thief photo is captured by automatic camera initiation and voice is recorded and uploaded in the server. Both the location and voice are sent as SMS alert to the alternative mobile number of the original user. Thief photo is mailed to E mail ID of original user. Location & Alert SMS are sent to the alternative number even if interest is not available. In this project input is IMEI number, IMS number, E mail id and alternate phone number. Finally output is detect the theft phone.

Fig: Architecture Diagram.
IV. PROPOSED SYSTEM

In the proposed system, Android Application is deployed with initial registration of Alternative Mobile number. If the phone is stolen, Original user will send SMS through a Normal phone or through an Application deployed in another Android phone to Track and verify the location of the theft Mobile. If the Thief changes the SIM card immediately Location details are sent to the alternative Phone number of the original User.

ANDROID REGISTRATION AND SERVER DEPLOYMENT

Mobile Client is an Android application which created and installed in the User’s Android Mobile Phone. So that we can perform the activities. The Application First Page Consist of the User registration Process. We’ll create the User Login Page by Button and Text Field Class in the Android. While creating the Android Application, we have to design the page by dragging the tools like Button, Text field, and Radio Button. Once we designed the page we have to write the codes for each. Once we create the full mobile application, it will generated as Android Platform Kit (APK) file. This APK file will be installed in the User’s Mobile Phone an Application. Using this APK user will be registering with the server by providing Alternative mobile number & Email ID. User’s IMSI number is also captured by the server.

The Server Application which is used to communicate with the Mobile Clients. The Server can communicate with their Mobile Client by GPRS and GPS. User will be initially registering with the server. Server will track the user with user’s IMSI number.

<table>
<thead>
<tr>
<th>Offline Phase (Tracked Device)</th>
<th>Online Phase</th>
<th>Tracker Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable the Network receiver of the device</td>
<td>Check for authentication</td>
<td>Send SMS with password of tracked device</td>
</tr>
<tr>
<td>Setup Password 1. System Password 2. SMS Password</td>
<td>Start the background service.</td>
<td></td>
</tr>
<tr>
<td>Set a phone number for boot time SMS service</td>
<td>Get latitude and longitude of current location from network</td>
<td></td>
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<tr>
<td></td>
<td>Get full address by using reverse geocoding</td>
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<tr>
<td></td>
<td>Detect the motion of the device.</td>
<td>Display the message.</td>
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<td></td>
<td>Prepare message.</td>
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<td></td>
<td></td>
<td>Decode latitude, longitude and address from the SMS.</td>
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<td></td>
<td></td>
<td>Display of tracked mobile in Google map</td>
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IMSI DETECTION

In this module if mobile is stolen by some anonymous person then we can track the anonymous person by using Phone IMSI no through our application, our application will listen the Registered IMSI number. After the mobile is theft by an anonymous person tries to change the Sim card. Mobile Application will identify the change in the IMSI number then automatically camera is initiated to capture the photo of the anonymous person.

AUTOMATIC CAMERA INITIATE

In this section camera is initiated and photo is taken so that anonymous person is captured by the android application. This photo is uploaded to the main server. Once after the photo is uploaded to the server, that link is captured & that link is send as SMS alert to the alternated number of the original user.
AUTOMATIC VOICE RECORDING
In this portion apart from the photo capturing event anonymous person’s voice is also recorded for better identification of that person. Once the audio is captured that file is send as E mail to the original user’s E mail Id. Original user can download that audio file and can hear the voice of the anonymous person.

AUTOMATIC GPS INITIATION AND ALERT
In the section if the mobile is stolen then the location of the anonymous person is traced by the GPS application in the mobile so that it update every movement of thief location and send the location value to the owner of the mobile. SMS alert the GPS location of the thief is sent to the owner so that they can easily trace the location of the anonymous person by clicking the link of the location URL which was send as SMS Alert. During this process photo and voice is captured and both are send to the original user’s Email ID. So that original user can download the audio file and listen to that audio or else he can see the image of the anonymous person. Photo of the anonymous person is again saved to the server so that the server link is send as text message to the original user’s alternative mobile number. If the original user clicks on the link then automatically image would be opened to the original user.

STORAGE ENGINES AND DEPLOYMENT
MySQL supports several storage engines that act as handlers for different table types. MySQL storage engines include both those that handle transaction-safe tables and those that handle non-transaction-safe tables.

V. CONCLUSION AND FUTURE ENHANCEMENTS
In this paper, a context tracking service implemented that can be used to track content and hence can be applied to locate lost/stole smart phones or users if he/she is struck in the tracks the location through the network not hungry GPS and senses user context through Location updates are sent based on the continuous Tracking can be remotely triggered from any not have Android Operating system. Performance is measured and the res encouraging. It shows that in the worst case applications are also running, the proposed system 1kB data and consumes less than 2% battery. We plan to launch tracking as a web service plan to incorporate more access rights so t uninstall the application forcefully. To ensure Data security and privacy data is split into multiple block encrypted and stored in multiple images to ensure security.

RESULTS

Page where we can see the user registration as well the activities of the mobile number. The details about the user can be obtained.
Deployment which has taken IMSI number of the SIM card which help us to locate device closely.

REFERENCES


BIOGRAPHY

Vijayanand K is a Student in the Computer Science Department, Rrase College of Engineering, Anna University. He received Bachelor of Technology(B.Tech) degree in 2014 from Panimalar Institute of Technology, Chennai, India. His research interests are Computer Applications, Data warehouse, web 2.0 etc.