Encryption Based Anti-Theft application for Android phones

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ABSTRACT: The purpose behind developing this project is to provide the user to track their lost or misplace device. A simple message from friends mobile will make the users phone ring even it is in silent mode if the phone is placed within the reachable range. Sometimes user loses his mobile he/she may not be able to locate it through ringing because mobile may not be within the reachable range, at that time a simple text message from friends mobile will help user to receive phones GPS location information on friends mobile as a URL. Also the camera of the phone works in the background without knowing the person and records the video as well as captures the pictures and sends this to the actual user with the help of MMS or an Email.

KEYWORDS: Android, Email, MMS, Multimedia Messages, Snapshots.

I. INTRODUCTION

We present an android-based approach for the design of Anti Theft Application for the smart-phone. Android environments provide several benefits to all the Common peoples of the society as android phones are the new trend of Society. As there are various chances of misplacing the phone or losing it is not affordable in day today scenario. In this fast moving world, peoples are always in rush .peoples usually carry few necessities with them, and we cant separate mobile phone out of it. For one or the other reason peoples looses or misplaces the things and one cannot easily afford loosing things like mobile phone. People always want mobile to be with them. The purpose behind developing this project is to provide the user to track their lost or misplace device. A simple message from friends mobile will make the users phone ring even it is in silent mode if the phone is placed within the reachable range. Sometimes user loses his mobile he/she may not be able to locate it through ringing because mobile may not be within the reachable range, at that time a simple text message from friends mobile will help user to receive phones GPS location information on friends mobile as a URL. Also the camera of the phone works in the background without knowing the person and records the video as well as captures the pictures and sends this to the actual user with the help of MMS or an Email.

II. RELATED WORK

A. LOCATION BASED SERVICE:

With the facilities of Android that provides LBS (Location-Based Service) components for retrieving information about where a mobile device is located, a system that retrieves the location of lost mobile and displays its position on the map was developed[6]. In order to track mobile device in indoor areas, cell identifier of GSM network is applied, instead of GPS. In contrast with GPS, cell identifier uses information from base station which uses radio frequency signals to track mobile device.[1] One of the most interesting things about cell phone is that it is really a radio an extremely sophisticated radio, which uses some band of frequency that has the basic working similar to the ordinary cordless phone. The mobile cellular communication has been appreciated since its birth in the early 70s and the advancement in the field of VLSI has helped in designing less power, smaller size but efficient transceiver for the purpose of communication.

B. GEOGRAPHIC BASED TRACKING SYSTEM:

This application is of interest to the parents and police department to restrict the roaming of a mobile user to a predefined geographical boundary. If mobile user breaches this boundary, then a alert message containing mobiles current location is sent to register mobile phone numbers and email ids.[3]

C. IMEI BASED TRACKING:

In this system discussion of problem of misplacement or loss of mobile phone and the probable solution that can be done. Once the mobile is reported as stolen, the IMEI number is a special number that is embedded in the mobile phone , blocks the calls made by unauthorised person but here we use it effectively only for the purpose of detection.[9]

D. VEHICLE TRACKING SYSTEM :

Vehicle tracking system is a miniature model of Global Positioning System(GPS). GPS is used to find out the position or location of the vehicle around the world. This implementation introduces an Android based tracking and theft prevention system[5] .The proposed security system is designed to track and monitor vehicles that are used by certain party for particular purposes, also to stop the vehicle if stolen and to track it online for retrieval, this system is an integration of shows an implementation of several modern technologies to achieve a desirable goal of meet monitoring and management.[8]

E. SNIFFER TRACKING SYSTEM:

For the detection of lost mobile SNIFFER plays a vital role. The sniffer device has to be designed precisely and size should be reduced for easy mobility for the purpose of detection[4]. The device can be called as a mobile Base station that includes Sniffer Base station, unidirectional antenna, tracking software. The sniffer is a small base station that includes transceiver section. It should operate at a frequency which is much different from the frequency of the current cell in which the operation of detection is being carried out. [2].

F. BIOMETRIC TRACKING:

The vital concept behind BATS is the Biometrics. The convenience of biometrics is obvious to anyone who accesses a secure computer or network on a regular basis. The ability to replace existing password based systems with a biometric (fingerprint, eye scan) would allow for a more secure computing environment, while also reducing the very real and documented cost associated with maintaining a password system[7].
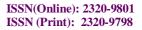
III.PROPOSED ALGORITHM

As there are various chances of misplacing the phone or losing it is not affordable in day today's scenario. We present an android-based approach for the design of Anti Theft Application for the smart-phone. The purpose behind developing this project is to provide the user to track their lost or misplace device.

1. Misplaced mobile:

A simple text message from a friends mobile will make users mobile to ring (even if it is on Silent mode) if phone is misplaced within reachable range.
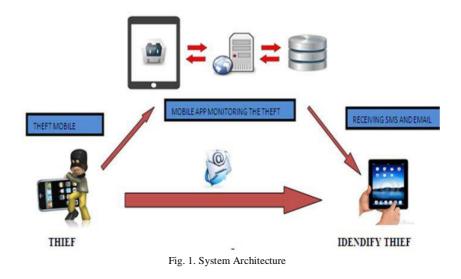
2. Lost mobile:

Sometimes user loses his mobile and he/she may not able to locate it through making it ringing because mobile may not be within a reachable range

Fig. 1. System Architecture

3. GPS:

A simple text message from friends mobile will help user to receive his phones GPS location information on friends mobile as a URL.

4. SIM Change Notification:

If SIM change takes place on users mobile, application will notify about this SIM change activity by sending text messages to friends mobile numbers.

5. MMS and Pictures:

This application enhances new technology like MMS where you can send video clips and picture to any other mobile phone. It gives information about the thief by sending the snapshot and small video .Works even if the GPS don't give the actual link.

IV.CONCLUSION AND FUTURE WORK

The simulation results showed that the proposed algorithm performs better with the total transmission energy metric than the maximum number of hops metric. The proposed algorithm provides energy efficient path for data transmission and maximizes the lifetime of entire network. As the performance of the proposed algorithm is analyzed between two metrics in future with some modifications in design considerations the performance of the proposed algorithm can be compared with other energy efficient algorithm. We have used very small network of 5 nodes, as number of nodes increases the complexity will increase. We can increase the number of nodes and analyze the performance.

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