



MULTIMEDIA MESSAGING SERVICE (MMS) BASED ANTI-THEFT APPLICATION

R. ARCHANA, E.G. BHUVANESHWARI, T. HEMAVATHI

Department Of Computer Science

Adhiparasakthi Engineering College, Melmaruvathur

ABSTRACT

MMS based anti-theft application is a technique through which the thief, who steals any android based mobile phone installed with this application, gets captured and the user can make him/her stop misusing any confidential information. This application includes the latest technology like MMS (multimedia messaging service) where you can send video clips and photos to any other mobile phone, unlike SMS which includes only text. It gives the information about the thief by sending the snapshots and a small video clip of the thief to an alternate mobile number, which helps us to recognize the thief.

The visualization provided by this application is the main feature which helps to track the lost mobile quickly. To recover lost mobile phones thus creating a fear psyche in thieves that they cannot get away with mobile phones which means we can monitor any cell phone and helping those who cannot afford to lose their expensive cell phones. Android based devices are used everywhere today and they serve as the storage repository of a variety of information. These information are confidential too and hence to be stored safely.

Misuse of any private information may lead to various problems. Hence before the misuse the data must be recovered. To solve these issues MMS based anti-theft application becomes mandatory. The main objective to build this application is to safeguard the confidential information and to track the lost devices soon. On the other hand, it also identifies the thief so that no one can try to steal any android based devices. This application is mainly to safeguard the android devices which have become the vital part of everyone's life.

EXISTING SYSTEM

In the existing system, an SMS (Short Messaging Service) is sent to the alternative number that is provided during the installation of the application. This SMS contains the information such as that the SIM has been changed. It also carries the data such as the location of lost devices and the new SIM number. For this, it uses the GPS facilities provided by Google Maps. The text message contains information that is given as plain text. This message

can be viewed by the user when he/she opens the message that has been received. And some applications send the message as a mail to the mail id provided while installing the application. It contains the same details and some may contain snapshots in it. They can be viewed when the user opens the mail.

PROPOSED SYSTEM

Once Anti-theft MMS app is installed, it runs in the background without interrupting the user's activities. It keeps checking for the SIM change continuously and detects the SIM change process. It takes snapshots as well as records a video without the user's permission when the SIM gets changed. Then it sends an MMS to the alternate number and an e-mail is sent to the mail id provided. The new SIM number and location is also tracked and sent to the number as an SMS, provided during installation. Hence the visualization provided helps to identify the stolen devices quickly. The media files are sent to the number and so they can be viewed when the user opens it. The user opens it immediately as it is sent with the images and a video and gets the location.

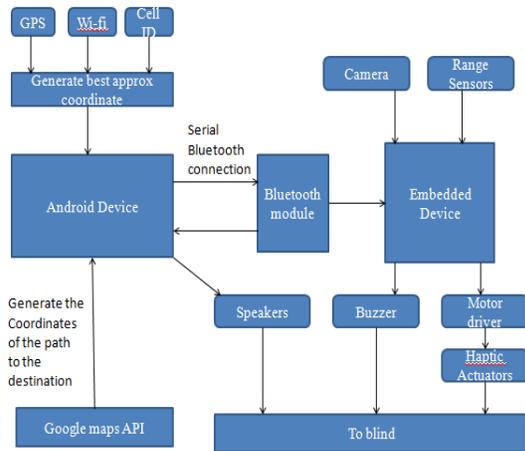
ADVANTAGES

MMS app helps to identify the thief with the help of information provided in the MMS and e-mail. Anyone can use this app without having much knowledge about the device. It involves only simple processes like entering the e-mail id and alternate number during installation. It provides visualization by sending snapshots and video. It is a background service that runs stealthily. It accesses MMS and internet services without user interaction. It is also cost effective and it is a simple process of installation. No technical knowledge is required to install this application.

ANALYZE HARDWARE PACKAGES

Android is a set of programs that work together to produce a result e.g. an Operating System & its applications. Android devices use the Linux kernel with some architectural changes made by Google. They need to develop hardware drivers to control the hardware for the kernel, that's why OEM (Original Equipment Manufacturer) has a contribution in developing drivers. The main

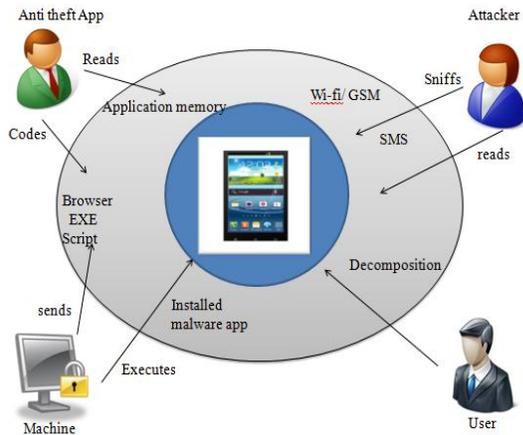
function of kernel is to control the hardware. It will act as an intermediary between hardware and software.



Analyze hardware packages

INSTALLATION OF APPLICATION

The Android hardware packages and services are analyzed before the installation of the application. The Application is installed with the registration page where the alternate mobile number and e-mail id are entered. The permissions to access the camera are granted by the users during installation. The current mobile number is stored in the Data Base.



Installation of application

ACTIVATION OF CAMERA

The android framework provides Camera API and Camera Intent to capturing images and videos. Camera intent is used directly i.e. without creating camera object. Camera intent is a fast way to use camera application, it provides an intent action type to request a picture and a video clip from a

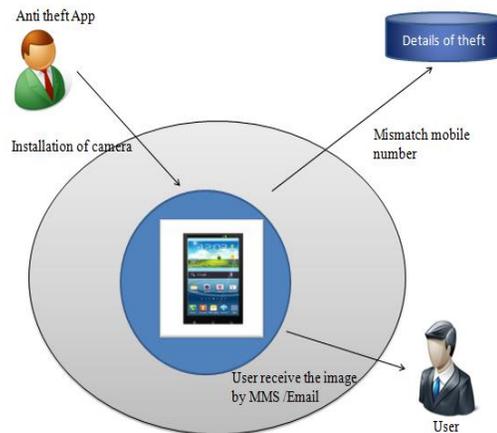
camera. So that the camera is accessed to take snapshots and to record a video. The permissions are requested at the time of installation.



Activation of camera

ACCESS SERVICES AND SEND MMS

If the mobile number mismatches with the current mobile number that is stored, then the app sends the signal to start the services. As soon as the signal is received, the services are started in the background. It will start making video recording and also takes snapshots which are stored in the SD card. Once these services are finished, then it will send a signal to another service to send MMS and e-mail. The MMS and internet services are accessed from the mobile to send the media files to the alternate mobile number and mail too. The current SIM number and the location is also sent to the alternate number as an SMS.



Access services and send MMS

GENERAL

Design is a meaningful engineering representation of something that is to be built. Software design is a process through which the requirements are translated into a representation of the software. Design is the place where quality is fostered in software engineering. Design is the place

where accurately translate a customer's requirement into a finished software product. Design creates a representation or model, provides detail about software data structure, architecture, interface and components that are necessary to implement a system. This chapter discusses the design part of the project. Here in this document the various UML diagrams that are used for the implementation of the project are discussed.

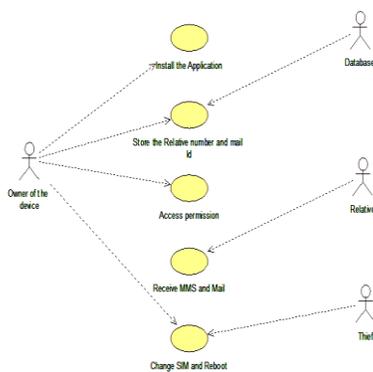
SYSTEM ARCHITECTURE

A system architecture is a conceptual design that defines the structure and behavior of a system. An architecture description is a formal description of a system, organized in a way that supports reasoning about the structural properties of the system. It defines the system components or building blocks and provides a plan from which products can be procured and systems developed, that will work together to implement the overall in a way that supports reasoning about the structural properties of the system. The system architecture of MMS based anti-theft application is given in fig 6.1.



System Architecture

6.3 USE CASE DIAGRAM



Usecase diagram

A use case diagram is a graphic depiction of the interactions among the elements of a system. A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis. The main purpose of a use case diagram is to show what system function are performed for which actor.

GENERAL

Implementation is the most crucial stage in achieving a successful system and giving user's confidence that the new system is workable and effective. This type of conversation is relatively easy to handle, provide there are no major changes in the system .Each program is tested individually at the time of development using the data and has verified that this program linked together in the way specified in the programs specification, the computer system and its environment is tested to the satisfaction of the user. The system that has been developed is accepted and proved to be satisfactory for the user. And so the system is going to be implemented very soon. A simple operating procedure is included so that the user can understand the different functions clearly and quickly. Initially at the first step the executable form of the application is to be created and loaded in the common server machine which is accessible to all users and the server is to be connected to a network. The final stage is to document the entire system which provides components and the operating procedures of the system.

SNAPSHOTS

STEP 1

In the fig 8.1, the registration page for the application is shown. Here the alternate mobile number and the mail id has to be entered. The user must give name and password here.



Registration page

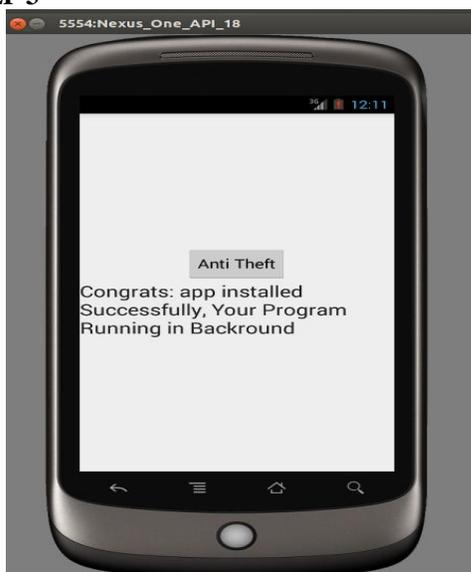
STEP 2



Registration page with details

In the fig 8.2, the registration page filled with the required details is shown. Then the checkboxes such as “send MMS” and “send Mail” have to be enabled before installing the application.

STEP 3



Application installation

In the fig 8.3, the application installation page is shown. After installing the application, a message will appear that the app has been installed successfully and it will be running in the background.

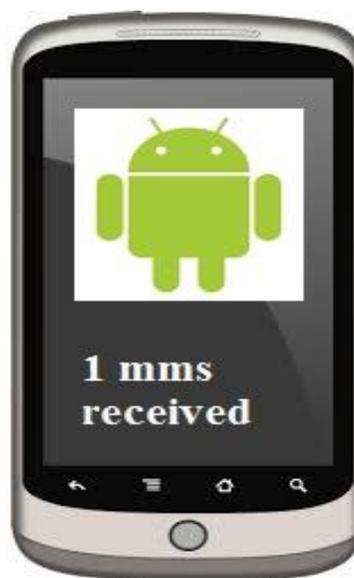
STEP 4



Taking snapshots

In the fig 8.4, the preview of image capturing is shown. But the camera runs stealthily without the user's interaction. Then it captures a video and also takes snapshots

STEP 5



Sending MMS

In the fig 8.5, the notification is shown that an MMS has been received. The MMS services are accessed and the media files are sent to the number and the mail id with the information that the SIM has been changed. The MMS has the images of the location of the device.



CONCLUSION

In this paper, the proposal is the advanced anti-theft technique for tracking the stolen android devices. MMS based anti-theft application is one of the Android apps which enables the users to find their stolen or lost devices quickly. This application is user friendly and it can be installed without any technical knowledge for the user. It is also cost effective and it utilizes the minimal resources from the mobile. The installation of this application is a simple process and takes only a few minutes. This is an enhanced way to identify the lost devices and attempts to provide security of confidential information. It does not involve any difficult tasks to identify the stolen devices and effectively tracks the location of the devices.

FUTURE ENHANCEMENTS

With the advent of time, technology is evolving every day. Our application will further be developed and improved. Currently this application is available for android based mobile phones. Future work involves development of the application for iOS, Symbian, Windows Mobile OS etc. And also the MMS can be sent to any chat messengers like Whats app, Hike, etc. With the help of Google maps, the exact location of the lost devices can be shown when the user has been logged into any of the google accounts.

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