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Tracking of Theft Mobile Phones and Laptops

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Abstract

This application is useful in tracking the location of the theft smart phones and Laptops. The application uses GPS, GSM, IP or MAC Address for tracking. In mobile phones whenever the SIM is flipped a notification is sent so as to confirm if it is authorized user. System uses a predefined message formats which can be used by the owner to get back the data from lost mobile phone and laptops So that the critical information required by the owner can be retrieved. These predefined message formats are protected by password which disallows the strangers from misusing the application. Through the predefined message formats, it is possible to get the contacts, mail the entire contact list or to delete a file in the smart phone.

The location of the lost laptop also can be traced based on its IP. This can be achieved by sending a notification to the owner once the laptop is connected to the Internet. The notification will contain the IP address of the laptop and based on this IP address we can trace the laptop. Same as Mobile Phones data can be retrieved in laptops also.

Keywords

GSM, GPS, MAC address

1. Introduction

Nowadays, mobile phones and laptop thefts are a common problem. To overcome this problem this application provides a solution to it. Tracking of both Mobile Phones and Laptops are done with the help of GSM, GPS, IP or MAC address. Whenever there is a confirmation about the theft from the user, this application gives information about the new SIM card number being inserted and the location of the device and similarly for laptop. This application also provides a medium to retrieve and delete data from the lost device.

2. Mobile Phone Tracking

The figure 1 given below describes about how exactly tracking is carried out in mobile phones.

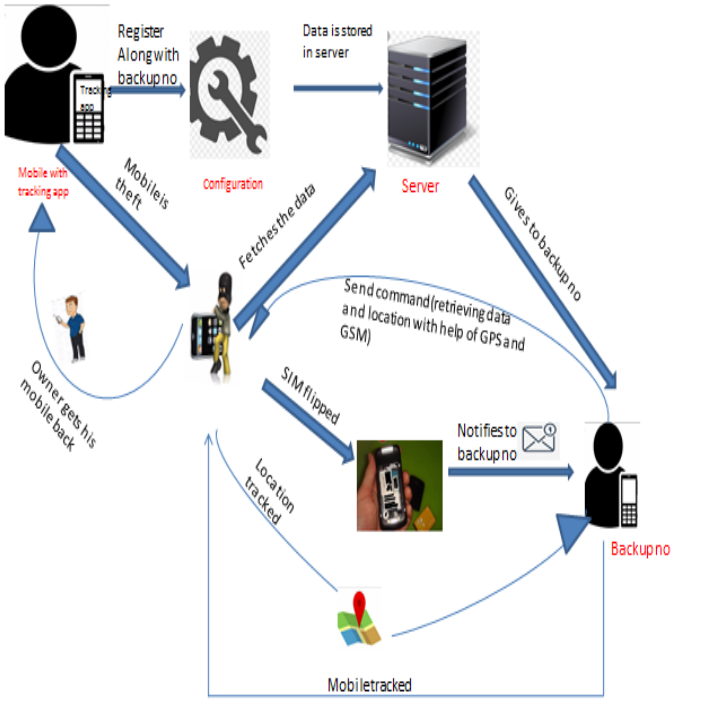

Fig-1: Architecture of Mobile Phone tracking

As Soon as the application is installed in the mobile phone, configuration is done where the backup email ID and the backup mobile number which is present in other device is registered with so as to the information is sent to the data being registered. Every time the SIM is flipped the notification is sent to the user for the confirmation of the owner. If it is an authorized user then the application will allow the device to function normally, if not the new SIM card number and the location of the theft mobile is sent to the backup number and the email ID which is registered.

3. Laptop Tracking

The figure 2 given below describes about how exactly tracking is carried out in laptops.

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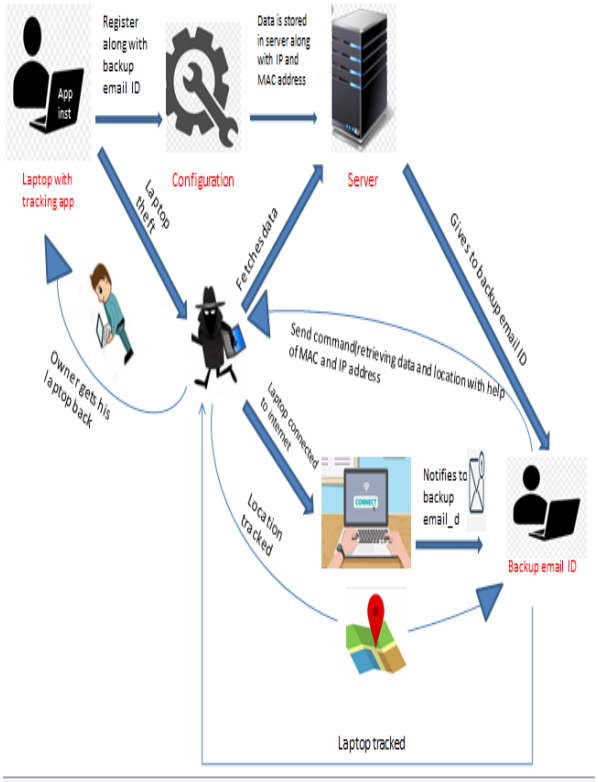

Fig-2: Architecture of Laptop tracking

Soon as the application is installed in the laptop, configuration is done where the 2 backup email ID's are registered with so as to the information is sent to the ID being registered. Every time the laptop gets connected to the internet notification is sent to the user for the confirmation of the owner. If it is an authorized user then the application will allow the device to function normally, if not, the location of the theft mobile is sent to both the backup email ID which is registered.

For retrieval of data in the lost device or for deletion of data in the lost device both for the laptop and the mobile phone specific command has to be sent to the application in response to which meta data will be produced and the data will be stored in the server. The required data can be retrieved and deleted as per users choice with the help of commands.

4. Proposed Algorithm

1. Configuration

STEP 1: START
Step 2: Enter Passcode
If (pass code is valid)
{
Specify owner back up number
Go to Step 3
}
Else {
Repeat Step 2.
}
Step 3: END

2. Algorithm fetching module:

Step 1: Start
Step 2: Send file transfer request to lost cell
Step 3: Receive Metadata from lost cell
Step 4: if (download required)
{
Step 5: Send download request
Step 6: Go to END
}
else
Step 7: END

3. Algorithm to trace laptop

Step 1: if (Lost laptop is connected to Internet)
{
Load IP address to Server
}
Else{
Repeat Step 1;
}

5. Front-End Views

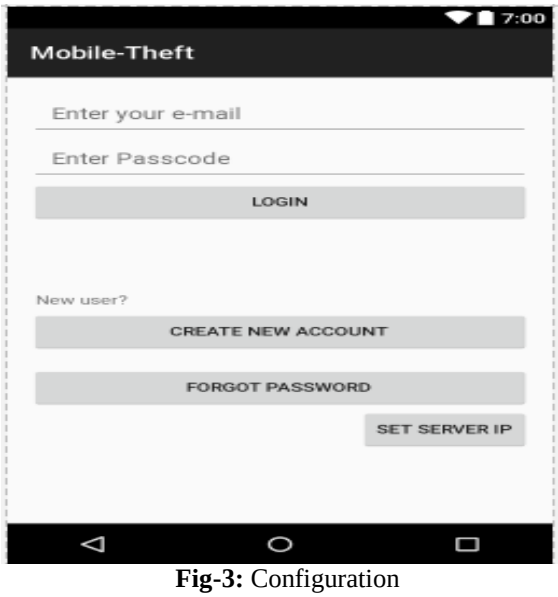

Fig-3: Configuration

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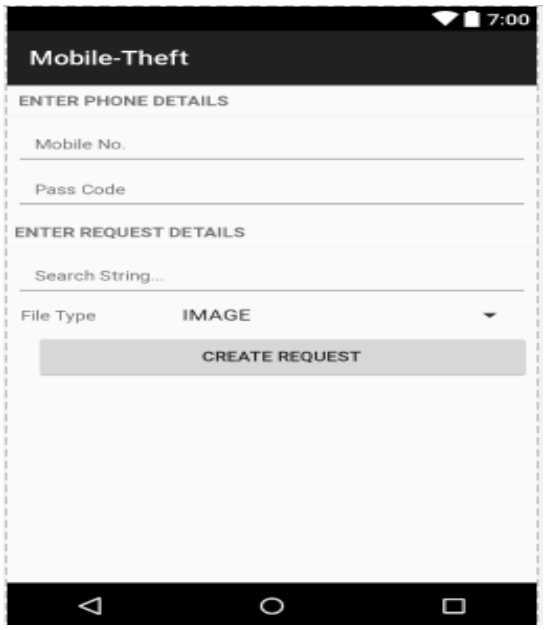

Fig 3.1: Request for retreival of data

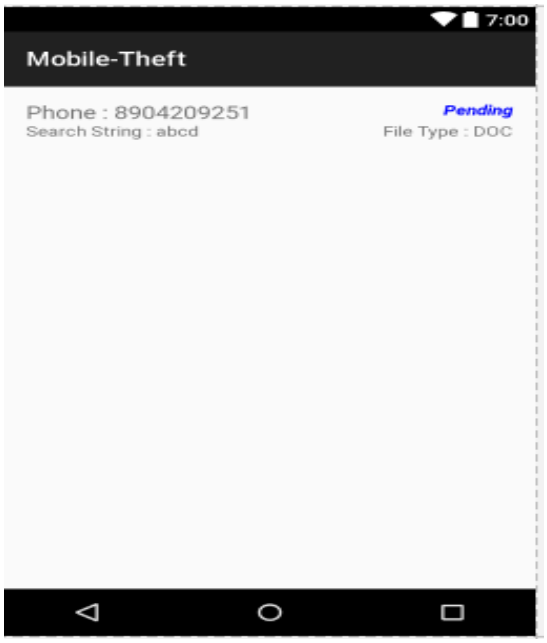

Fig 3.2: Retrieval of data

6. CONCLUSION

The tracking of theft mobile phones and laptops is an application developed so as to overcome the common problem of devices being theft. This is an user friendly as all the notifications are sent via SMS and E-mail which are the common medium of communication and is well known by the common people. This application is better as it provides an option to retrieve and delete the data from the lost device so that the personal details are not misused and the privacy is maintained. This application is highly secure and one cannot simply uninstall it making it easier to find out the lost device.

7. References

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