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Design and implementation of Cell Tracking system and Sync with cloud

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Abstract— In today's world more than eighty percent people uses the smart phones. As the need increases the misuse of the cell phone also increases. Anyone can distrust or cheat other or suspicious of others activities. There may be loss of an important data in the big organizations due to the employees. Many criminal activities have increased in organization and teenagers are misusing the smart phones. So for the security purpose in the large organizations and to control the activities of the employees and the teenagers, software can be used which keeps the log files in a single mobile with its date and synchronize daily with restricted area in corporate with cloud.

Keywords- *Smartphone, Organizations, Security, Log files, Cloud.*

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I. INTRODUCTION

Smart phones are used every days by millions people. There is an increasing interest in the research community to explore the capabilities of smart phones for the development of monitoring and tracking systems, i.e., with robots, health care, transport and sensor network among others.

Employee monitoring systems are increasingly used by many companies now a day. These systems allow company administrators or managers to monitor and supervise their employees from a central location. Employers are usually concerned about employee's performance, legal liability, trade secrets and security concerns. Besides to the closed circuit television (CCTV) which is also known as video surveillance, many companies are involved in internet monitoring in the workplace [2]. Some companies use employee monitoring software programs. Such programs are installed on company computers to allow managers to take screenshots and monitor Emails, applications used, and even what keys were pressed. With the development of the smart phones, similar monitoring systems are available for company mobile phones. This development allows companies to monitor even mobile of an employee's when they are not even at organization. Additional data can be recorded from smart phones like employees' phone call details, actual conversations as well as messages. This software can create a log files thought a day and when it comes to the restricted area the all log files are automatically synchronised with the private cloud which we are using to store the all log files [1].

This action may affect employee satisfaction due to privacy issues. Such software however resembles spyware and can be misused. To gain the satisfaction of both employers and employees the comprehensive monitoring systems with privacy protection aspects are needed.

II. EXISTING SYSTEM

Now, there are so many cell phone tracking software available in the market. Like mSpy, Mobile Spy, XNSPY etc. These cell phone tracking software works by extracting information from the target phone and displaying it on Smartphone, tablet or desktop computer, whichever method is convenient for admin. Internet connection or cell phone signal is required to receive all texts, calls, GPS, social media and many more.

The software begins extracting information from the target phone as soon as the downloading is complete in the target phone. Admin have to login on the software control panel at any time to remotely receive captured data of a monitored phone or computer or the program will operate in the background of the target phone and not be visible to the user. Admin can view the activity from the target phone just as it appeared.

III. PROBLEM DEFINITION

In the existing system, the child or employee will get notify that they are monitored. The app has an icon which further notifies them that they are being monitored. After the software is setup on the monitored phone, it will log on phone activities then insert the information to your account using the internet. When admin want to view results, simply login to the form with any web browser and enter his/her username and password [1] [2].

With the Live Control Panel, admin can view the phone's screen and it will allow him/her to see exactly what user do while you are away from them. But when admin's device which monitored the target cell phone is not working properly then he/she can't see what is going on the target cell. Admin have to login all the time to monitor the target cell phone. We are storing all the log files on the cloud so that admin can access the log files from anywhere.[1]

The main motto behind implementing the software is to provide security to organizations. This development allows companies to monitor the mobile of employees.

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Additional data can be recorded from Smartphone's like employee's phone call details as well as actual conversations. So that no one could cheat an organization. Advanced programs can save and analyze an automatic log for all kinds of acquired data. This system is also for the parents who want to trace their children and want to prevent their children from involving in suspicious activities. This system might also help to find the criminal from the log records.

IV.   PROPOSED SYSTEM ARCHITECTURE

The cell tracking system helps manager and parents to monitor the Smartphone's and tablets. Employee monitoring systems are increasingly used by many companies now a day[1] [2]. These systems allow company administrators or managers to monitor and supervise their employees from a central location of admin. Employers are usually concerned about employee's performance, legal liability, trade secrets and other security concerns. This software is allowed to use in real time to keep watch on children and employees.

The system is worked as follows:

- Firstly user should agree to install the software in their mobile.
- Log files will automatically generate for the entire activities user made in their mobile like call duration, call recordings, messages and web browsing history.
- When user comes at the restricted area the log files get transfer to the private cloud on that area.
- Now, the data will secure on the private cloud and administrator or manager can access this log files from anywhere.

V.   SYSTEM DESIGN

The application can uses Android based cell phones for running the implemented software. In this system we can use different modules, and main three modules are employee app, admin and cloud. And whole employee phone uses data will be stored in centralized cloud. Mobile device which is in the hand of the Employee should be an Android device and the Managers may have taken any laptop or any other device. For detailed data it can be stored in the centralized cloud like the details of incoming call, text and multimedia messages and the timely location update of their Employee. Admin may later login into the centralized cloud and view the details of their Employee's mobile usage.

We found the three main modules in our current research. These three modules are as follows:

A.   Main Module

1) *User:* Firstly the user should agree to install the cell tracking software in their cell phone. When the software install in their cell phone the log files create for each and Every activity made by the users mobile. These all log files store with date and duration of   the activity.

a) This table is made for the use of normal employee which is works in the organization.

b) In the side of user consist of android phone contain call log, SMS and web browser features.

c) They will be enabled with the 3G connectivity.

2) *Admin:* Admin plays an important role in the system. Admin can login to the cloud with the username and password. And can access the all log files of the user from anywhere and also from any device.

a) These desktops are especially for the use of the employee monitoring system[1].

b) The manager should be able to control the all function of organizational employee from a single centralized cloud.

c) He can access any phone uses information and should be able to take decision on that.

3) *Cloud:* Whenever the user's cell phone comes in the range of a cloud all the log files will automatically transfer to the cloud. And admin can access the log files of the employees from this cloud. The benefit of the cloud is thar we can access the information of the employee from any device, any time and from anywhere.

B.   Sub Module

1) *Call Logs:* Employees should not use their company phone for personal use, if they call to an unapproved number from employee list; it will be logged on server. Calls Logs should show the details of incoming and outgoing calls and history from employee's phone like date, time, and phone number.

2) *Message History:* Manager should get the message history from employee cell phone like text message and multimedia messages with date and time.

3) *Web Browser History:* The module should show the web browser history of users phone and store web details on server. List of authorized sites is maintained in cloud database.

4) *Unauthorized Call/Website List:* Managers should be able to update list of unauthorized websites that should not be accessed by employee. Managers can disapprove the international calls for the employee.

VI.   SYSTEM SPECIFICATION

The technologies which are used to implement the system are as follows:

1) The Android mobile terminal is use by the employees or any other user.
2) The operating system for the user is Android, We develop mobile ad hoc network for communication.
3) Java programming language and android SDK and JDK are used to develop the software.
4) JSP or SERVLET is used for Database Access from the cloud.
5) MY SQL it is a light Database which is going to be used for database access from the cloud.

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VII. EXPERIMENTAL RESULT

1) Go to AndroidBackup_cloud app which is present on the user cell phone.
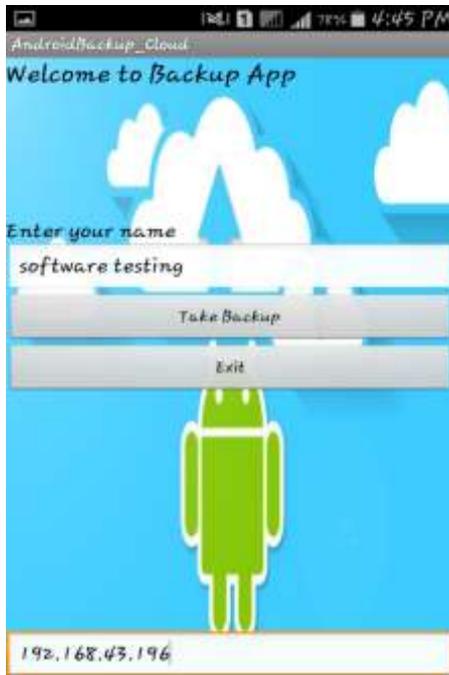2) Login with the name of that user ex. Software testing.

Fig 1. User login Page

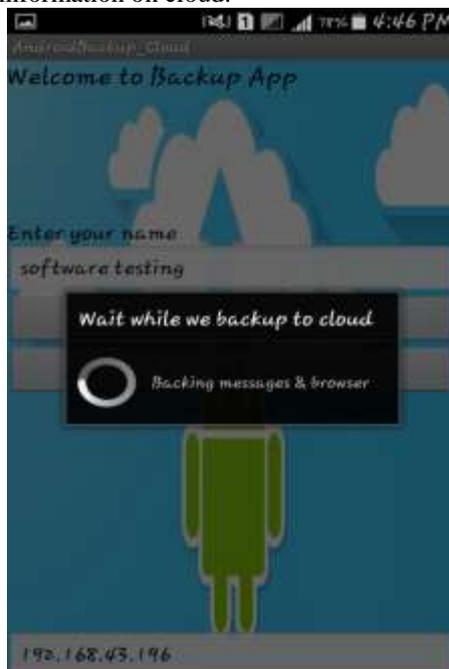3) Press on Backup Button and wait to load the information on cloud.

Fig 2. Logs Load on Cloud

4) After the backup successfully the all log files of the user data automatically sync with the cloud and admin can access this data anytime.

Fig 3. Backup Notification

5) Go To: https://192.168.43.196/
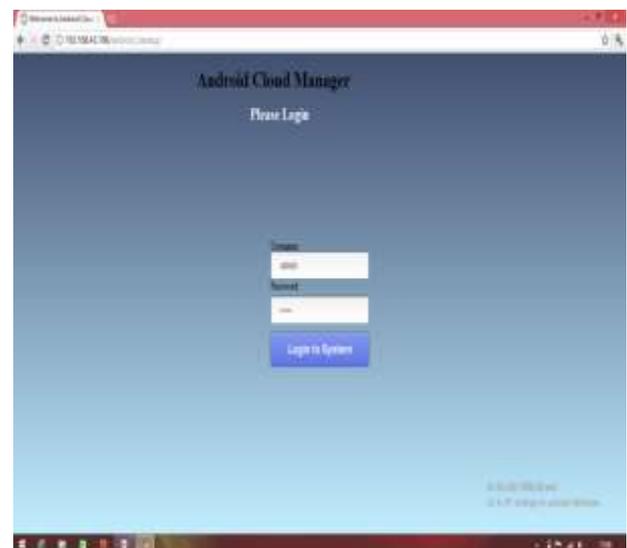6) Login:
    a) Username: admin
    b) Password: admin

Fig 4. Cloud Login Form

7) Refresh the cloud to update the cloud.
8) For view the detail information click On Download Credentials Button.
9) After click on the Download button the all log files of that user will store at cloud.

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Fig 5. Registered user with cloud

VIII. CONCLUSION

In this paper, we have implemented the employee monitoring system and system features to meet the organization requirements. By using this system it is possible for the admin to track an employee in the organization and save the organizations confidential data and also save the organization from any criminal activity. In this application it is also possible for the admin to know all the incoming and outgoing calls and text messages sent by an unknown person to the employee.

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