

Abstract – In this paper an attempt has been made to develop a smart application that helps the user to track the police patrol online. The application designed here provides the best security measures to make the user feel more secure. The safety of citizens is an integral part of any city nowadays so for this reason it is necessary to provide the best security measure possible. This application not only provides security but also provide the user a way to request for help anytime anywhere.

Keywords – city safety; police patrol; smart planning ; GPS, Vehicle Tracking.

1. INTRODUCTION

My safety is an application that involves vehicle tracking system that tracks the vehicle location. Nearly every police department creates geographic patrol districts (also called patrol sectors or car beats) as a standard management method to enhance the capabilities of the uniformed patrol force. Better districting plans lead to lower response times, officer's familiarization with their assigned area, more efficient use of personnel, more equal division off workload, a visible police presence, enhanced officer safety, officer accountability, and balanced police response to calls. Traditionally, these geographic patrol boundaries are drawn by hand based on a police department's knowledge, experience, and the available police resources Most police departments also lack a method for formally evaluating and comparing the performance of competing district plans, instead relying on the judgement and intuition of police planners. However, given the complexities of the police districting plan, it is unlikely that an optimal districting plan will be chosen by chance using this method.

This application uses the google map services to track the police, an algorithm is used to find the nearest police patrol. The user can make the request anytime 24/7. Based on the selection process the nearest police patrol will be alerted, a requests will be forwarded. There will be a time period provided within that time the request has to be accepted otherwise the same request will be forwarded to another police patrol. When the request will be accepted the locations will be shared between them, this location will be the precise location. In the current system the user has to provide the location manually on the phone call, this may lead to wastage of time. The user will be able to provide the real time photo of the incident which will be kept in the database as the proof records.

The database will be used to store the information about the user which will be stored and shared at the time of the request made. A database will also be used for the police department which keeps the records of the requests served and other information.

2. PROBLEM STATEMENT

In India it is usually seen that due to less management in handling crimes, the crime the crime rates are getting increased day by day. Whenever a person is being victimised tries to call for help for the police it is seen that the police always arrives late at incident place. Due to this the victim suffers a lot and many times the person who has actually committed the crime can be placed behind the bars. There are times when police arrives early but sometimes they can't even reach due to some difficulties.

When we make a request a help from the police who are patrolling nearby we waste a lot of time in giving the exact address and other information

which can be used to stay alert. So for this reason we have developed the application through which in just few seconds the request for help will be served to the police department. In this your location will be automatically given to the nearby police patrol team through your gps location so you don't have to waste time in give location. The other thing is you can also the real time incident image to the police department which will be kept for the proof.

The application once served will provide the latest safety measures for the user. The application will be used by various cities in order to improve their security concerns. Police patrol department will be easily handled just through the application because the data will be stored in the database. Through the database every information needed can be retrieved easily as compared to the current traditional system in which they have to use books and logs. It becomes quite difficult for the police department to keep the track of the cases and store them.

The users can easily send a emergency help message whenever needed 24/7 and can expect the help assurance within some time interval. As gps system is used for tracking it will solve the time which is wasted in sending the address to the police department.

3. FRAMEWORK

A. Mobile Police Information Patrol

This main interface where users access the system is through the mobile police knowledge portal. There is a proposed framework which follows a client-server architecture whereby the clients connect to the system through either wi-fi or mobile internet connection in this application.

B. Mobile Computing Framework

There is a client server architecture used here in which the client side consist here of a particular mobile device and the server side here consists of a web service which interacts with the server. Through this architecture both interact with each other in a simplified way.

C. Authentication

A user is authenticated as soon as he/she enters the system. This system provides information to the officer and other users based on user's credentials. Each user will have a unique profile, where details of the latter are kept secured. Access to the system is only granted after providing a valid username and password, which is first compared to that stored in the database.

D. Access Control Management

The system keeps track of the user's access levels in order to keep private and secured data confidential from unauthorized people, keeping it safe from any types of attacks or breaches. Each user has certain access level and access to information based on his/her grade in the police force. The access control component ensures that every data which is being kept is secured and is confidential. If there are any tamper with the system it is immediately notified by this particular component. Access control is also used so that the activities of a police officer are restricted based on tasks assigned to him and cannot be used by another entities.

E. System Database Management

This component has all the information about the database and stores the data related to police

officers and the patrols that are being held around. This component is responsible for retrieving the information whenever it is needed. This unique central database on the server can be accessed 24/7 by officers on the move and in case of any emergency. It stores all information about users, police officers, crimes, pictures amongst others. This component reduces the redundancy if caused and solves it as fast as possible

F. Context Knowledge

The police officer's location is retrieved as soon as the latter starts using the system. Within the GPS location, all the crime cases of the nearest police station can be retrieved and can be used further. If more than one police station is found at that location, a list is returned and out of that a check is been made as to which will be selected out of them. Attaching context to information resources here allows retrieval of resources in a more intuitive way and definitive retrieval. Retrieving the information is based on querying an information pool by the content of a desired resource need at that time and is quiet easy. For photos or videos, the information resource and the latter can be queried by its creation context rather than its content. Information sharing is made available to every mobile police user within a group of access whenever required.

G. Information Management

This component manages the acquisition of information which can be done mainly through web forms through the database. It manages videos, text and images which are stored at different locations connected to a centralized database. Information from police officers are stored and made available to everyone in the police force. A search engine is available for quick search and retrieval of data. Data entered into the system are stored on the server and made accessible to the officers on the move and in police stations.

H. Information Creation

This component can be used to create relevant information and combine information from the database and use them, identify criminal suspects by examining trends in a particular location in a fashionable way, crime type, habits and other patterns of behaviors. Relevant reports can be produced to help in decision making and to solve complex police cases as soon as possible. Information is created and stored here and can be retrieved as soon as possible.

I. Information Acquisition

The acquisition of data is done mainly through web content. It mainly contains of videos, text or images which are stored at different locations connected to a centralized database or it can be a information of a particular entity. Information from police officers are stored and made available to everyone in the police department so it can be used by everyone present there. Data mining techniques can be applied to find specific information and combine information in database. A search engine such as a web browser, connected to a server is made available which stores the data related to the police officers and the users using the application. It operates with a terminology in which expertise is sought and may not always match the terms used by the expert to classify that expertise in the database. All input on the mobile devices are stored in the database available on the server due to limited amount of memory space on mobile device.

J. Information Storage

Data which is entered into the system are stored on the server and are made accessible to the officers on the move and in any police stations. Police officers have access to information typically stored on the database such as reports, images, email, video clips

amongst each other. An information system that solves problems are made available to the law enforcement workers and police station. Domain specific information are acquired from the experts and are represented in a knowledge based system.

K. Information Transfer

Information about who-knows-what and where are they at that time are made available through a specific corporate directory, to the people in the police department. The personalization strategy is applied whenever the knowledge is tied to the person who has developed it and can be shared mainly through dialogue between officers, personal email, meetings and one-on-one conversations or one to many possible. The system supports organizational knowledge flows between geographically dispersed coworkers and makes it possible to share information quickly, globally, and with large numbers of officers and a particular police department.

4. GPS TRACKING

GPS tracking is the surveillance of location through use of the Global Positioning System (GPS) to track the location of an entity or object remotely. The technology can pinpoint longitude, latitude, ground speed, and course direction of the target.

GPS tracking is invaluable for police, firefighters, military personnel and large courier businesses. Many of these use automatic vehicle locator (AVL) systems. AVL systems generally include a network of vehicles that are each equipped with a mobile radio receiver, a GPS receiver, a GPS modem and a GPS antenna. This network connects with a base radio consisting of a PC computer station as well as a GPS receiver and interface. GPS uses interactive maps rather than static map images on the Web. AVL systems can be used to increase the

accountability of field personnel and boost the efficiency of a company's dispatching procedure through tracking and communication.

Police vehicle tracking is a growing trend within many cities around the world. Not only does tracking police cars with GPS ensure the safety and accountability of all officers on the force, but it also provides the law enforcement agency, its officers, and citizens a variety of benefits. One of the biggest benefits offered by police vehicle tracking is that it provides those in law enforcement the ability to better deploy available units to fight crime more efficiently. This reduces crime, increases arrest rates, and reduces the amount of officer or civilian injuries. Another benefit offered by tracking police officers with GPS is the ability to locate missing or lost police officers or their vehicles in the line of duty.

The benefits of tracking police cars with GPS are not limited to safety and accountability issues. In fact, many law enforcement agencies that utilize police vehicle tracking have been known to reduce costs associated with labor hours, fuel consumption, and vehicle maintenance. Tracking police vehicles with GPS can also help to reduce carbon emissions. In turn, this helps law enforcement agencies within the community promote a healthier, more sustainable environment.

In our application the system will provide the location of both the user using it and the officer which is nearby to the convict. When the officer accepts the request, he gets the location of the user and the user also gets the location of that particular officer.

5. CONCLUSION

This project represents a solution for the existing police patrol system through which the user gets the

best security measure as possible. The application can be used by the user whenever he/she feels necessary, the application provides services for 24/7 which allows the user to make request anytime. As the application will be spread in many cities the crime rate can decrease by some rate and a analysis can be made on the department information which helps the police department to the handle the cases properly.

6. REFERENCES

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