



Suraksha Digital Transformation to Indian Police Services

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Abstract: With the vision of Digital India programme to transform India into a digitally empowered society with safety of every individual is of highest priority in modern India. This project will be contributing to the Information and Communication Technology (ICT) which focuses on enabling effective communication between the citizen and the police. To increase transparency of Indian Police Services and to boost the public confidence rating, a mobile app that has all-in-one solution to enable secure real-time operational system will be developed as a part of the project. This project enables common man of India to get connected with the police system anytime, anywhere in India with various modules which includes Criminal booking module, Lost belongings module, Investigation module and Traffic monitoring module with accident rescue operations.

Keywords: Suraksha, IPS, Mobile APP, Tracking ID, Digital Transformation, Police, User/Citizen.

1. INTRODUCTION

Digital India, to which India is being transformed into, is the new buzzword which is striking the minds of every citizen who belongs to the country. Digital India, which emphasizes on developing electronically generated services, has made most of the government services to be available online; e-ticketing, e-shopping, e-tax filing, e-Kranti, e-hospitals, e-farming and many more. To empower the concept of E-Governance and to reach out to the Indian Police Services, a mobile application is developed which is called SURAKSHA. Suraksha is a standalone mobile app which is developed to enable police services online and it plays a vital role in maintaining law and order of the country. This mobile app is a direct contribution to the concept Digital India, thus taking the pride of India to a much higher level.

2. CURRENT WORKING AND AVAILABLE APPS

Though there have been many enhancements in the working of the IPS, all of them are unheeded. The present service basically works as follows, requires a manual method of lodging a complaint, minor incidents which require manual tracking are ignored, manual documentation, overrated procedures to solve major issues. The service provided by the IPS seems to lose its scope due to such deprivations. Though there have been many social forums to reach out to police none of them have been very efficient. The apps which have already been working to serve the purposes of e-services are Indian Police at your call, Bangalore City Police, know your police station, Thiruvananthapuram city police, UPP Lost Report App. All these apps have been working up to date with a few cons, some of which are listed below Limited to only a particular city/state.

All the cases for which the user wants services are not provided.

The tracking details of the case are not included.

Suraksha provides a standalone solution to all such disadvantages therefore ensuring the safety of each and every individual of the country.

3. NEED FOR DIGITAL

TRANSFORMATION IN IPS

The Indian police service has been serving the country in many ways till now. To protect the nation from crime, theft and many other activities these cops bury their sweat off. In every city of each state in India there are innumerable amount of police officers to serve this purpose. They are the only way on which the citizens of the country can rely upon in case of any negative event. The efficiency of the Indian Police Service sometimes lags due to some limitations. The procedure adapted to serve the mankind seems to be a very tedious process when it comes to crime related activities. The problems associated along with this process are time management, miscommunication, lack of knowledge about the event and many more. The main factor is time management. Also, after a person has booked a complaint he/she has to regularly follow the advancement physically which is a tedious process. Hence, here comes the need for digital transformation. Digital transformation in IPS is the use of internet to interact with the police at the time of an event. Since India is a developing country, digital transformation would take the pride of this country to a higher level. The prolonged procedures can be minimized through digitalizing the IPS. As it is known Digital India is all about seeking government services through the internet



electronically. Digitalizing the IPS contributes a part to Digital India. A glimpse of this technique would be filing an FIR by the police through internet which reduces time consumption, also the task of the victim to physically appear at the police station regularly. A tracking device will be a part of the digitalizing process as a result any severe case can ensure immediate action. Any accident that has taken place can be reported immediately and the police can arrive at the location through Google map APIs. As a part of the developing nation, it is the responsibility of every citizen to contribute and cooperate for this purpose. Hence digitalization of the Indian Police Service contributes a major part of India acquiring the tag of a “Developed country”.

4. IMPLEMENTATION

The architecture of the digitalized police system is shown in Figure 1. The system contains unique dashboard for all police stations to ensure that the cases from different jurisdictions do not pile up together. The user has to register for the very first time by uploading all the basic information such as a Name, Date of Birth, a Photo, Permanent residential address and other details.

Soon after the successful registration, the user data will be stored safely in a centralized database of Indian Police system and these data can only be accessed by police officials.

Whenever a user logs in to the app, he/she will be mapped from current location to the police station based on the jurisdiction. There will be multiple channels for users to get connected to the police station and the modern police control room for all the requests raised by every individual who is in need for any types of police services.

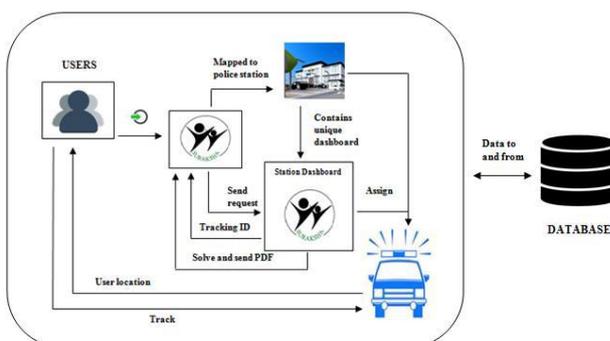


Figure 1: Architecture of Centralized Police System

The user will have list of options for using different types of services provided from the police department. The modules which the police end provides are options for registering complaints for lost sim card, lost mobile phone, physical threat/assault, accidents, missing person and vehicle theft. All these modules serve as a basis for all

types of crimes. Every type of services are given with the priorities and resolved accordingly. The user will be issued with a tracking ID on submission of request for any sort of services and all the requests made by the user will be made reflected in the police systems to take up the case and resolve.

The tracking ID can be used to track the current status, action taken from police to get the complete solution. These ID's are given with a lifespan and police system has to respond to the user request within a particular period of time.

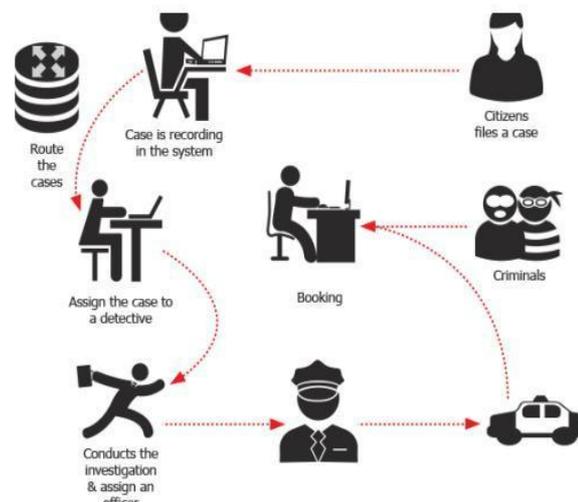


Figure 2: Entities of Proposed Digital Police System

If there is no response from any of the officials within the tracking ID expires, the same request or complaint will be made reflected in the higher officials system and hence the severity levels keep increasing as the request moves up in hierarchy or levels of police system. With this plan, the station will be informed completely about particular case of a user for taking the further actions. Based on the severity level of the request or complaint made by user, police system will generate a patroling chart and will assign a patroling team to take actions and resolve the problem dynamically. The user can use the tracking ID to check the current position of the corresponding patroling team and also track the patroling vehicle location using the Google map APIs to boost the confidence level and bring the sense of safety. The police system can also deploy CCTV's across the city and monitor the activities and the videos can be stored in the centralized database and used throughout the county for investigation purpose.

The proposed mobile app will have user friendly interfaces for accessing the services at any point of time and will give complete localization in terms of the languages used by the users, i.e., a user can change the language from English to any local language to access the application easily and effectively.



□ **SOCIETAL IMPACT OF SURAKSHA**
This is the 21st century where technology is at its peak. Digital transformation has a huge effect on the way citizens live in the society. Digitalization makes availing any services to be a cake walk. There will be a drastic change in the way the cops take up a case. Digital Transformation to the IPS mainly solves the problem of overlapping between the responsibilities held by many police officers, many dysfunctional and communication problems. It also controls the rate of corruption in the society. The user interaction becomes more feasible due to the automatic response from the police department side. As a result of this, a quick remedy can be obtained for any problem within a short amount of time. This is not only useful for the public but it also reduces the burden on the police officers. The major outcome is that it provides safety and security to the public in any situation. It also plays a major role to make India a developed country. The different modules that are included solve different type of problems can be very useful to reduce the crime rate in the society. This increases the responsibility of every individual to make the country digitally improve in all the ways to achieve safety of every individual. Many police officers from rural areas can serve the public as they can improve their knowledge. This brings a revolutionary change in socio-economic activities in the patterns of Indian society, the modern age of economic activities and political awakening; the police have to perform arduous task of law and caution. Hence it increases public cooperation and support. The sense of social responsibility is a major change that we can bring to our country. The creation of awareness among people which makes them protect their surroundings is also a good sign to the society. The task of the police officers becomes easy if the city is free of corruption and that can be achieved by digital transformation. The healthy use of technology can make a common man of India to improve in all aspects and as a result improving the whole country. The drastic changes that can be brought due to digitalization make India a highly developed country that directly affects the country to increase its economy. Thus digitalization brings a positive impact to the whole society.

5. CONCLUSION

Emphasizing on the details again, SURAKSHA is designed on android platform for making Indian society digitally empowered with the aid of recent improvements in mobile technology. This application helps tracking the location of the victims through Google map APIs which helps the law enforcement authorities to rescue the person in need as quickly as possible. As stated above, bringing digitalization to Indian Police Services in the Indian society is something that is imperative. Digitalization basically enables very efficient and faster methods of communication between the citizens and the police

system. As most of the citizens today carry smart phones to wherever they go, with only a few prerequisites, this application can be really helpful for personal safety. Suraksha means safety; henceforth enabling safety of every individual of our country at their figure tips is the main aim of this project.

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