

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

NAME OF CATEGORY- 'INNOVATIVE USE OF MOBILE TECHNOLOGY IN e-GOVERNANCE'

1. Coverage – Geographical and Demographic :-

(i) Comprehensiveness of reach of delivery centres,

The new mobile application, named Eklavya-V, is accessible to the police personnel/officials of Gujarat Police by using internet facility in their smart phone itself.

(ii) Number of delivery centres:

Eklavya-V being an android and ios based application, can be used by various officials/personnel of Gujarat Police who have been given access to the application by a written consent from the authorized officials. It has already been installed in more than 3,000 smart phones of police personnel/officials.

(iii) Geographical

(a) National level – Number of State covered

(b) State/UT level- Number of District covered

All Districts of Gujarat

(c) District level- Number of Blocks covered

Please give specific details:-

The Eklavya-V software is used by Gujarat Police to trace stolen vehicles and vehicle-borne criminals. Also it is useful in curbing crimes involving vehicles, like chain snatching, robbery, kidnapping, rape, etc.

(iv) Demographic spread (percentage of population covered)

Eklavya-V software has details of approximate 2 Crore vehicles owned by the citizens of Gujarat State from which around 1.41 Crores are in the digitized format and stored into the database of vehicles being searched by the software. While the details of approximate 73 lakh remaining vehicles is available in scanned format and stored in the system storage for further usage. Further, details of approximately nine lakhs stolen vehicles throughout India has been uploaded in database for search.

2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project) :

Before implementation of Eklavya-V software, the police had to take the help of the RTO to get the details of the vehicles (engine no, chassis no, color, make,

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model, etc.) along with the details of vehicle owners and then validate the same with the vehicle being detained by Police to catch criminals who had used vehicles in committing crimes. This took a lot of time and by the time the required information was received by Police, the criminals had got away.

So to curb crimes in which vehicles were involved, it became a necessary for Police to develop a system so that the details of the vehicle along with vehicle owners are available to them within some few seconds. Also in cases/instances where the commuters may have forgotten to carry their vehicle documents with them, at that very instance it became a big challenge for Police officials to decide whether the commuter is a really owning that vehicle or is he/she a criminal who has stolen the vehicle and commuting in the same.

3. **Scope of Services** (Relevance of application for e-governance, Extent to which service is delivered through mobile #)

With the use of 'Eklavya-V' application, the Gujarat Police maintains a computerized record of vehicles and their owners. This record can be accessed by policemen in the field to quickly identify stolen vehicles and those used in crimes.

Besides helping curb crimes in which vehicles were involved, Eklavya-V also helps in classifying the commuters who had forgotten to carry their vehicle documents with them from the criminals who have stolen and ran away with the same vehicle. Instead of spending hours on the road waiting for the RTO to provide the required information, the policemen can now access the vehicle details in no time and confirm whether the vehicle actually belonged to the commuter or not.

Eklavya-V also helps policemen in preventing crimes like chain-snatching, robbery, terrorist activities, kidnapping and vehicle thefts in almost all the cities of Gujarat State.

Eklavya-V software helps to nab those who indulge in crimes using bikes or cars belonging to others (for e.g. Stolen vehicles). Policemen just have to note a vehicle's registration number and search the same in the software installed in their mobile phone. Further with the help of the software the policemen will immediately retrieve all the details of the vehicle in his/her mobile phone on the spot. Information like registration and model number of the vehicle, the type of the vehicle along with its color, its engine and chassis number and also the owner's name can be accessed almost instantly using the software.

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4. Strategy Adopted

(i) The details of base line study done,

Initially before the implementation of this software the policemen on the field need to wait for the details of vehicle of the commuter being stopped and stranded by Policemen supposing it to be a stolen vehicle. In such conditions the innocent citizens which are being stranded by policemen had to wait for long time without any reasons. So police decided to design a system so that innocent citizens didn't get harassed by policemen on the basis of suspicion.

(ii) Problems identified,

Policemen and innocent citizens which were kept stranded on the basis of suspicion and also not carrying the vehicle documents with them, had to wait for long duration for getting response/reply from RTO with details of their vehicles along with ownership details to clear the suspicion of policemen regarding ownership of vehicle by the commuter/citizen.

Also many a times due to delay in receiving vehicle details from RTO end the criminals involved with vehicle crimes gets away by using some unethical means too.

The criminal cases related to crimes such as chain snatching, kidnapping, rape, etc where vehicles were used that also took a prolong time in getting resolved. This was due to unavailability of a facility/system to get details about the vehicle owners in a minimum time duration to nab the criminals at the earliest possible duration.

(iii) Roll out/implementation model,

Eklavya-V software was initially implemented by using SMS facility within crime branch internal officials where they were kept in a same group and the details of the vehicles were shared with the required policemen on spot by exchange of SMS between them.

During next phase stage the software application was developed for android platform and ios which is being used by various police officials of crime branch. Eklavya-V software is also shared/installed in smartphones of various police officials from Gujarat Police officials from all over the state.

(iv) Communication and dissemination strategy and approach used.):

Eklavya-V software has a push – pull information exchange and dissemination strategy, wherein a policemen sends a request/query from his mobile for getting details of suspected vehicle/vehicle owner. The system

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responds by sending the details of the vehicle/vehicle owner as requested by the policemen.

5. **Technology Platform used-**

(i) Description,

Crime Branch department of Gujarat Police has developed the software application by Leveraging existing IT Infrastructure available with the department for minimizing Project Roll Out Cost & Time.

The software application has been developed for web as well as mobile based platform.

For web based platform the technology used is Microsoft Access and Visual Basic Access as front end of the software application and My SQL as the database for storing vehicle data and as backend of the software application.

Eklavya-V application for mobile has been developed on android and java platform. In the software application development part also the department has used open source and freely available softwares for development of the application and here also leveraging the available softwares for minimizing the project cost.

(ii) Interoperability

As the software application has been developed using open source and freely available softwares the same application can be easily operated using any other platform with some minor modifications in the source code and database (if any). The existing software application is also developed for iOS operating system by using the same database and with some changes in code part as per the operating system specifications.

(iii) Security concerns

The software application uses the unique IMEI no. associated with each mobile device along with the unique user-id given to the department user as an authentication medium. Only after verification of the registered user-id and associated IMEI no the system allows the user to login into the system and access the database of vehicles. So the security of the data has been the top priority while development and implementation of the system by the department.

(iv) Any issue with the technology used

As the department has used the latest technology and also taken care of various security concerns for the use of the software application and vehicle data, there is no issue with the technology used in the software

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application.

- (v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

Eklavya-V being a self-developed software application and which uses open source as a software platform no SLA's are defined or documented for the system.

6. Citizen Centricity (Give specific details on the following#)

- (i) Impact on effort, time and cost incurred by user,

The software application has been developed as an in-house application by the department user by using the latest technology and the available resources (infrastructure & required software) which has reduced the cost incurred in development and implementation. On the other hand after optimum utilization of available resources the software application fulfills all the requirements of the department and also helps the users in detection and prevention of criminal activities to a large extent.

- (ii) Feedback/grievance redressal mechanism,

The suggestions or the feedback received from various department users are being incorporated into the system after discussing the overall impact of the inputs/suggestions of the system with the authorized committee members.

- (iii) Audit Trails,

Eklavya-V software application has a facility to track the number of queries requested by various users of the system to track the activities carried out by the department users. This facility also helps in tracking and curbing any corrupt or fraudulent practices followed by any departmental users (if any). Detailed log of searches made by each user is maintained in Crime Branch-Ahmedabad office to ensure that the application is not misused.

- (iv) Interactive platform for service delivery,

Eklavya-V software application has been developed on android platform and ios which is the operating system for most of the smartphones used by the department users.

Eklavya-V software application can be accessed by department users by using their Android and ios based smartphones and internet facility

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available in the same.

(v) **Stakeholder consultation**

The authorized users of the department have been consulted during the development and implementation phase of the software application. Also any further suggestions are discussed and implemented after getting approval from the authorized officials.

7. Demonstrate Innovation in use of Mobile Technology for e-governance

(Give details about the mobile technology used (platforms, SMS, Pull & Push, Apps, Mobile Payment,), innovation applied in use of mobile technology to deliver information or Services to target audience #)

Eklavya-V software application has been developed on Android platform and ios which are the latest technology for developing various mobile applications. The policemen can fetch the vehicle details within fraction of seconds from his/her mobile device being on the spot and can take a decision of any suspicious vehicles. Using this application the policemen can detect and prevent the crimes related to vehicles such as theft of vehicles, chain snatching, robbery, kidnapping, rape, etc.

This application also helps the policemen to nab the criminals associated with various crimes as mentioned above within a very less time duration. Using this application the policemen can now get hold of the stolen vehicles by various criminals in a very short duration due to a large database of vehicle data available in the system from various sources. This application has also led to a improvement of Police image amongst the citizens of the State as the vehicle stolen cases gets solved by the police with a very short time duration and the vehicles are handed over to their legal owners which took a long duration before the implementation of the Eklavya-V application.

8. Adaptability and Scalability (Give details about Local language support, ability to leverage shared Government infrastructure, Standardization of technology used (hardware, software, application etc. #)

Eklavya-V application is having support for English language as the data vehicle and theft data available from various sources are mainly in English language. If required the software application can also support the local language as the system is Unicode complaint.

Eklavya-V software application has been developed by Leveraging existing IT Infrastructure (hardware and software) available with the Government

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department for minimizing Project Roll Out Cost & Time.

Eklavya-V software application has been developed on Android platform which is the latest technology for developing mobile based applications.

9. Adaptability Analysis

(i) Measures to ensure adaptability and scalability

Eklavya-V application which is being developed on android platform for mobile application can be installed on all the mobile phones irrespective of the available version of the android operating system for a particular mobile device. This application is also being developed for iOS mobile platform which is available in most of the i-phone mobile devices.

The desktop/web application of Eklavya-V is developed using MS Access and VBA, whereas a relational database management system (RDBMS) My SQL has been used as a database for the application.

(ii) Measures to ensure replicability

Eklavya-v application developed for mobile and web/desktop use can be replicated for other States of India by using the same hardware/software infrastructure but the vehicle data needs to be updated as per the requirement of that specific State. This will help to detect and prevent various crimes related to vehicles across the country if the same is being replicated at various states in India and as a result reducing the crime rate in all the states of India.

(iii) Restrictions, if any, in replication and or scalability

As the software application is developed using the existing infrastructure available with Police department so there are no restrictions related to scalability or replication of the application to various other States of India. Whereas after replication of the same application at various other states of the country, it would help the State police in detection and prevention of crimes occurring in the state and would also help to nab the criminals associated with such crimes.

(iv) Risk Analysis

There are no risks involved in using the software application as the

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validation of the user is being carried out with unique IMEI no. and user-id mapped to the same.

10. **New Models of Service Delivery** (Give details about type of partnership model used, Links to/Supported by Public/Private Organization, Links provided to relevant websites etc. #)

As the Eklavya-V software application has been developed by in-house team of Crime Branch, Ahmedabad City Police no partnership model or any other organization has been involved in development of the application. Also this being a department specific application the same has not been kept in the public domain or even not accessible to any other unauthorized officials.

Crime Branch, Ahmedabad City has carried out drives such as Ashwamegh-I, II and III for getting the details of the suspicious vehicles, getting hold of the theft vehicles and delivering the same back to their legal owner (citizen). Hundreds of vehicles were recovered and restored to their original owners during these drives using Eklavya-V.

11. **Efficiency Enhancement** (Give specific details about the following #)

- (i) Volume of transactions processed,

Eklavya-V application has approximately 3,000 registered authorized users. The log which is maintained for the software application contains the Mobile No., IMEI no. Name, Designation and other relevant details of the authorized police official.

The log also maintains the details of the queries requested by various users of the application. Query transactions of around 1.1 Lakhs has been processed on a monthly basis.

- (ii) Coping with transaction volume growth

The software application is developed in such a manner that it can cope up with unlimited transactional volume growth. Also in case the existing server is not capable of handling transactional volume growth the department can change the hardware infrastructure on requirement basis.

- (iii) Time taken to process transactions,

Eklavya-V application takes around 2-3 seconds for fetching and displaying the requested vehicle related data after the user login into the system.

- (iv) Accuracy of output,

The vehicle data which is fetched from the system and which is displayed to

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the user is 100% accurate as the data is fetched from various reliable government sources such as data from HDIITS, SCRB/NCRB, Theft data of Ahmedabad City Police and RTO data of Gujarat State.

(v) Number of delays in service delivery

There is no delay in service delivery as the request of vehicle data is directly handled by Eklavya-V software application without integration with any other system or database.

12. User convenience (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

Eklavya-V application can be accessed by registered/authorized user through desktop/web as well as mobile application.

(ii) Completeness of information provided to the users,

The vehicle data which is fetched from the system and displayed to the user is more than the required or the requested data by the user which helps him/her in detection and prevention of crimes.

(iii) Accessibility (Time Window),

Eklavya-V application can be accessed by the registered/authorized user from their mobile on 24x7 basis.

(iv) Distance required to travel to Access Points

Eklavya-V application being developed for web/desktop as well as mobile platform, the same can be accessed by the users at any field location by using their mobile and the internet available in the same.

(v) Facility for online/offline download and online submission of forms,

The forms for issuing access rights to the authorized users needs to be signed and submitted to the Crime branch of Ahmedabad city. Other than that there are no other forms which needs to be downloaded or submitted in online/offline mode.

(vi) status tracking

Using the Eklavya-V application the registered/authorized users can get the required vehicle data within fraction of seconds and also by being at the spot location, so there is no requirement of status tracking of the same.

13. Sustainability (Give details about sustainability w.r.t. technology (technology used, user privacy, security of information shared – Digital Encryption etc. #),

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Organization (hiring trained staff, training etc. #), financial (Scope for revenue generation etc. #)

Eklavya-V application is being an in-house development by Crime Branch of Ahmedabad City police and which has helped them in solving many cases related to theft, robbery, chain snatching, etc. is used by various police officials of Gujarat State. This application has helped them to reduce the crime rate in the state by a reduction of substantial value of 29-34%. As the application is mainly accessible by mobile phones the policemen can get the details of suspicious vehicle on the spot and being at the same location in fraction of seconds and without getting help from any other sources.

The application is being accessible to the registered/authorized users with a unique user-id which is mapped to the mobile's unique IMEI no. which prevents any security issues such as leakage of confidential data or such instances. The data which is shared with the authorized users is also sent in a encrypted format which takes care about the digital encryption too which sharing the data by various available options on mobile platform (whatsapp, telegram, email, etc.)

Training for acquainting the users with the application has been carried out by the department so the users can easily navigate the application as per their requirement.

Due to implementation of Eklavya-V application the cases related to vehicles gets resolved in a shorter time duration which reflects in reduction in land utilization for keeping the stolen or suspicious vehicles at Government premises (e.g. Various Police Stations). This helps in utilization of the same land space for some other purpose by the Police department and in sense utilization of the Government land space and revenue for betterment of the Police Department.

14. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

(i) To organization

After implementation of the Eklavya-V application the Gujarat Police department along with the Crime Branch was successful in solving cases related to vehicles used in crimes such as theft, robbery, chain snatching, kidnapping, etc. in a much shorter time duration then before. This has also led to a reduction in crime in the state by 29-34%

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as the criminals are nabbed by the police.

(ii) To citizen

The criminal cases of theft of vehicles, robbery, chain snatching, etc. registered by citizens at various police stations are resolved by the police officials in a shorter time duration and the police has also been successful in retrieving/recovering the vehicles. The same retrieved vehicles are being checked by policemen for any complaints regarding theft by any citizens and after verification by the department, the vehicle is been delivered back to its legal owner. In this way the citizen complaints are resolved in a shorter duration and they also get back their stolen vehicles.

(iii) Other stakeholders

Government revenue for the utilization of the land space for storing seized vehicles, which were unclaimed due to un-identification of original owners, at Police Stations has been reduced.

The recovery of the stolen vehicles by police personnel has also helped the loss being incurred by various insurance companies which have been involved in providing insurance to such vehicles.

15. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

Eklavya-V application has been developed and implemented by the Crime Branch of Ahmedabad City with an objective of detection and prevention of crimes carried out by criminals in the city. After implementation of the application the Crime Branch of the city has succeeded in solving many cases related to crimes where vehicles have been used. The application has also helped the department in curbing the crime rate in the city upto a larger extent.

Also after utilization of the same application by various departments of Gujarat Police especially Traffic department has helped the traffic policemen to differentiate between an innocent citizen and a criminal commuting by vehicles to different locations.

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16. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, change in legal system, rules and regulations

In earlier system if a police official needs to get any data related to the vehicle they need to contact RTO of the city which may deliver the data to them after a long time duration. Whereas after implementation of the application the policemen can get details of vehicles within fraction of seconds and also at the spot. This helped the policemen in classifying/filtering the innocent citizens from the commuters and getting hold of criminals involved in carrying out different crimes with the help of vehicles.

Earlier the FIR/complaint lodge by the citizen related to theft of vehicle, robbery, chain snatching, etc. where vehicle has been utilized took a longer time duration to be resolved. While after implementation of the application the cases related to vehicles got solved in a shorter time duration and the vehicles were recovered and delivered back to their legal owners.

The crime rate in the state has been drastically reduced from 29-34% after implementation and use of such applications.

17. Other distinctive features/ accomplishments of the project:

1. Through various drives (Aswamegh-I,II and II) carried out by Crime Branch of Ahmedabad City they were successful in recovering the theft/stolen vehicles and also delivering the same back to their legal owners.

2. Application is developed by a Police Constable, Shri Dilipsinh Thakor, and therefore, easily facilitates modification and updation of software and database.

3. The solution is very cost effective, as all the in house resources have been used.

4. Search results can be shared with help of various applications, such as whatsapp, SMS, e-mail, etc.

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This is just an indicative list of indicators. Applicant can add on more information based on suitability of the project nominated.