Crime record management system
CCTNS for U.P Police

MAY 2013

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Mentored by:
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Preface

I am part of Internship program at Rakshak Foundation for summers April-May 2013. My name is Richee Singh. I am currently pursuing my PGDM (Post graduate diploma in management) from IIM Calcutta. I did my B.Tech in Aerospace Engineering from IIT Kanpur in 2010 after that I worked as Design Engineer in HAL (Hindustan Aeronautics Limited) for a period of 23 months before joining IIM Calcutta. I have worked on key projects related to our countries defence like LCA (Light Combat Aircraft) IJT (Intermediate Jet Trainer) and FGFA (Fifth generation fighter aircraft).

Rakshak Foundation is a 501(c)(3) non-profit organization headquartered in Santa Clara, California, which researches different public policy issues and creates awareness about them. Rakshak foundation brings in perspective on various issues to the attention of decision making bodies. Their basic objective is to help strengthen foundation of society and bolster the confidence of common man by creating awareness about the issues affecting them. The aim of organisation is to create awareness about social, civic, legal issues at various levels of administration. I chose to join this internship program as this internship would help me provide an opportunity to get an exposure to various projects of social importance and get myself involved in some of the key issues related to public policy and governance. This internship has helped provide me an holistic picture of how various policies are implemented by government, the key decision variables involved, number and scale of people who are affected. I think this Internship has helped me realise my duties and responsibilities as a citizen of my country.
Acknowledgements

I express my sincere thanks to Rakshak Foundation for providing me an opportunity to work as an intern in their Summer Internship program. I give my special thanks to my mentor Shri Asim Arun ji, DIG Technical Services, Lucknow, U.P police for being my mentor and guiding me in my project and helping me during the course of internship period. I thank SPMU (State Project Management Unit) Ernt & Young consulting team helping me by providing me relevant material Information pertaining to project. I also thank Department of Police, U.P government for providing me opportunity to work with them.
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Executive Summary

CCTNS (Crime and Criminal Network Tracking and System) is a mission mode project of National e-governance plan of Government of India. CCTNS project has been conceptualized to modernize the core policing function for enhancing outcomes by sharing real-time information on crime and criminal investigation/detection and crime prevention among various police organizations and units across the country. CCTNS aims at creating a comprehensive and integrated information and communication technology platform for enhancing efficiency and effectiveness of policing especially at Police stations and at all levels through adoption of principle of e-governance and creation of a nationwide networked infrastructure for IT-enabled state of the art crime and criminal tracking systems has the following objectives.

- Provide the investigating officers with the tools technology and information to facilitate faster and more accurate investigation of crime and detection of criminals.
- Facilitate collection, storage, retrieval, analysis, transfer and sharing of data and information among police stations, districts, state headquarters and organizations/agencies.
- Make the police functioning citizen friendly, transparent, accountable, effective and efficient.

Key activities of the project included Capacity Building (includes training), Infrastructure, Data Digitization/Migration, CAS (Core application software) development, SDC (State data centre) Connectivity and Change Management.

The goals and objectives of my project were to study the working of the U.P police department in implementing crime record management system CCTNS (Crime and criminal tracking network and services) by studying various activities of project and help in their implementation by using appropriate tools. Study key management issues like change management, training etc. which were being addressed during the course of project. The nature of IT impact has been analysed by using strategy tools like McFarlane strategy grid and other related qualitative tools. Assisting department in smooth running of project by suggesting and using proper project planning and management tools like Pert Chats, Gantt chart used in identifying bottleneck activities and which would subsequently help in reducing delays. This in turn would help in reduction of cost. Implementation of CCTNS will lead to increase in efficiency and effectiveness of policing which will impact millions of citizens.

The project involves many issues on networking connectivity, Change management, Capacity building training, Project is running smoothly within timeframe as of now.
but may incur delays if issues like quality of core application software, Networking and connectivity solution by BSNL, Proper training of staff in specified timeframe are not addressed. Other issue which is highlighted is flow of information within department and increasing its own brand value in the eyes of its own personals as well as in public.

Core Application software developed by Wipro is slow Connectivity is an issue Staffing issue was also incurred some station with high traffic can have more number of operators and some with low traffic can have less operator

Some recommendation mentioned therein includes

- Change management as such cannot be implemented by changing an individual part of system but developing a new environment itself
- Implementing change management suitably to create an environment in which officials takes the new system with enthusiasm it can only done by creating awareness and a bright image of project.
- Two way communication should be encouraged feedback is essential for proper implementation that can be done through the use of an email account or chat engine till the time CAS is not rolled out Services like Google Hangout Google Chat and an email ID for reporting issue can be created on private servers personal involvement of senior level officers may be required.
- Encrypted Internet should be provided in at least one computer in a police station so that issues may be reported to top management and process remains fast during course of project itself.
- Create awareness and enthusiasm in officials by creating a good image of themselves about the services and responsibility they offer to the country may be in similar lines to that of armed forces brand value can be created by the use of tools like add poster, videos, flyer etc.
- Increase competition among the network provider by strict monitoring of progress of work and deadlines specified. If possible do not stick to only to one provider
- Selection of Staff who have some exposure in handling computers instead of blindly asking anyone
- Reduce time in operation by giving them tutorial in typing in Hindi or selecting people who have already has some certified typing speed
- Proper job Scheduling is required one way to do is by increase number of terminal in stations who are having more reported cases and a few (2 personals one for GD (General diary) and second for other entries) at stations with fewer incidents.
1. Introduction

1.1 Background Information [2]

The following words by Sh. P Chidambaram Ex-union home minister describe the current condition of police stations of the country “The police stations in the country are, today, virtually unconnected islands. Thanks to telephones and wireless, and especially thanks to mobile telephones, there is voice connectivity between the police station and senior police officers, but that is about all. There is no system of data storage, data sharing and accessing data. There is no system under which one police station can talk to another directly. There is no record of crimes or criminals that can be accessed by a Station House Officer, except the manual records relating to that police station. Realising the gross deficiency in connectivity, the Central government is implementing an ambitious scheme called "Crime and Criminal Tracking Network System (CCTNS)". The goals of CCTNS system is to facilitate collection, storage, retrieval, analysis, transfer and sharing of data and information at the police station and between the police station and the State Headquarters and the Central Police Organisations. [2]

Crime and Criminal Tracking Network & Systems (CCTNS) is a plan scheme conceived in the light of experience of a non-plan scheme namely - Common Integrated Police Application (CIPA). CCTNS is a Mission Mode Project under the National e-Governance Pan of Govt of India. CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting of principle of e-Governance and creation of a nationwide networking infrastructure for evolution of IT-enabled-state-of-the-art tracking system around 'Investigation of crime and detection of criminals'. An allocation of Rs. 2000 crores has been made for CCTNS Project. Cabinet Committee on Economic Affairs (CCEA) has approved the project on 19.06.2009. Expression of Interest (EOS) has been invited from the Software developers by 17.08.2009. [3]

Objectives of 'CCTNS'

The objectives of the Scheme can broadly be listed as follows:

1. Make the Police functioning citizen friendly and more transparent by automating the functioning of Police Stations.

2. Improve delivery of citizen-centric services through effective usage of ICT.

3. Provide the Investigating Officers of the Civil Police with tools, technology and information to facilitate investigation of crime and detection of criminals.
4. Improve Police functioning in various other areas such as Law and Order, Traffic Management etc.

5. Facilitate Interaction and sharing of Information among Police Stations, Districts, State/UT headquarters and other Police Agencies.

6. Assist senior Police Officers in better management of Police Force

7. Keep track of the progress of Cases, including in Courts

8. Reduce manual and redundant Records keeping

Under the CCTNS Project, approx. 14,000 Police Stations throughout the country has been proposed to be automated beside 6000 higher offices in police hierarchy e.g. Circles, Sub-Divisions, Districts, Range, Zones, Police Headquarters, SCRBx including scientific and technical organizations having databases required for providing assistance and information for investigation and other purposes e.g. Finger Print Bureaux, Forensic Labs etc. by 2012[3]

1.2 Main Problems, their scope and impact on the society [3]

The CCTNS Scheme is proposed to be implemented in a Mission Mode, and has the following objectives:-

**Immediate**

- Provide the Investigating Officers with the tools, technologies and information to facilitate faster and more accurate investigation of crime and detection of criminals.
- Reduction in manual and redundant Record keeping.
- Networking across Police Stations and higher offices for information sharing
- Easy filing of complaints by Citizens
- Enhancement of training infrastructure

**Mid-Term**

- Facilitate collection, storage, retrieval, analysis, transfer and sharing of data and Information among Police Stations, Districts, State headquarters and other organizations/agencies, including those at Government of India level.
- Capacity building of the Policies offices through Training
- MIS generation for easy decision making
- Seamless information sharing across investigating agencies.
- Keep track of the progress of the crime and criminal investigation and prosecution Cases, including progress of cases in the Courts.
Long-Term

- Make the Police functioning citizen friendly, transparent, accountable, effective and efficient by automating the processes and functions at the level of the Police Stations and other police offices at various levels.
- Improving delivery of citizen-centric services through effective usage of Information & Communication Technology (ICT).
- Improve the Police functioning in various other areas such as Law & Order, Traffic Management, curbing organized crimes, resource management etc.
- Enabling and assisting the senior Police Officers in better management of Police Force
- Enhancing transparency and accountability in Police functions and processes

1.3 Goals and Objectives

The goal of the project was to study the working of the U.P police department in implementing crime record management system CCTNS (Crime and criminal tracking network and services). Study various heads of project and help in their implementation by using appropriate tools. Study key management issues like change management, training etc. which were being addressed during the course of project. The core objective of implementing such IT system being Improvement of core operation Studying the nature of its impact by using tools like McFarlane strategy grid and other related qualitative tools. Study Citizen centric services being offered by this project in RFP (Request for proposal) and impacts which it may have in citizen’s life. Assisting department in smooth running of project by suggesting and using proper project planning and management tools like Pert Chats, Gantt chart used in Identifying bottleneck activities and which would subsequently help in reducing delays. This in turn would help in reduction of cost. Implementation of CCTNS will lead to increase in efficiency and effectiveness of policing which will impact millions of citizens.
2. Methodology

2.1 Literature Search
I have used Request for Proposal Volume I Scope of services for State System Integrator It intends to bring out all the details with respect to functional and technical requirements along with details on scope of services required from the State System Integrator, Implementation model, and non-functional requirements that UP Police Technical Services deems necessary to share with the potential bidder. [4]Request for Proposal Volume II Commercial and Bidding Terms of the RFP details the general terms & conditions with respect to the bid process management including bid submission forms to be adopted for the proposed project. Request for Proposal Volume III Draft Contract for State System Integrator. Volume III of the RFP details out the Draft contract for the proposed engagement outlines the contractual legal terms & conditions applicable for the proposed engagement Request for Proposal Empanelment of Consulting Firms as State Project Management unit for Implementation of Crime and Criminal Tracking Network System (CCTNS) project. Service level agreement (SLA) In pursuance to Memorandum of agreement for crime and criminal tracking network and systems connectivity solution between NCRB (National Crime Record Bureau) & Bharat Sanchar Nigam Limited (BSNL) between U.P police and BSNL

2.2 Field Visits
I carried out field visit at Daliganj & Hazratganj police station Lucknow Reserve police line to understand the grass root implementation of CCTNS project.

2.3 Surveys
I conducted Question and Answer session with CCTNS Staff at Lucknow Daliganj police station. Routine Q&A sessions were done with System Integrator NIIT and and SPMU Ernst & Young during course of implementation of project

2.4 Meetings and Interviews Regular meeting and discussions with my mentor Shri Asim Arun , DIG, Technical Services

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Designation</th>
<th>Institution</th>
<th>Topic of Discussion</th>
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<td>Sri Sanjeev Tyagi</td>
<td>ASP</td>
<td>U.P Police</td>
<td>CCTNS Implementation</td>
</tr>
<tr>
<td>14-05-13</td>
<td>Vikas Bhadoria</td>
<td>SI</td>
<td>U.P police</td>
<td>CCTNS</td>
</tr>
</tbody>
</table>

Please refer Appendix A for details
3. Current NGO and Government Efforts

Government has outlined the RFP which states that CAS (Core application Software) will be developed at NCRB under the overall guidance and supervision of NCRB (National Crime Record Bureau) and MHA (Ministry of home affairs). A CAS (state) and CAS (Center) software will be provided. U.P state has been working in this project as soon as it was launched. System Integrator NIIT was selected using commercial bidding procedure calculating the worth of bid by using discounted cash flow technique. To strengthen the State Police Department in meeting its objective of CCTNS project a reputed, professional and competent agencies to be selected as State Project Management Unit which would be providing expertise in the areas of project management for CCTNS Implementation in respective states, monitoring software development and infrastructure management, change management, Supporting State/UT police department for review, monitoring the services to be provided by system Integrator providing project management office service to the state nodal officer of state for management of CCTNS project in coordination with ministry of home affairs government of India and other stakeholders. Ernst& Young has been selected as SPMU for U.P. A memorandum of agreement has been signed between NCRB & BSNL for providing connectivity solutions. Service level agreement (SLA) in pursuance to the Memorandum of agreement for CCTNS (Crime and Criminal Tracking Network and System) has also been signed between NCRB and BSNL. Regular weekly status meeting etc. discussion on Network/connectivity issues with BSNL etc. are being conducted for smooth implementation of project in U.P.
4. Results and Discussions

4.1 Findings from the literature[4]
The RFP Volume I of the project describes about the implementation strategy of CCTNS. It states that CCTNS would be implemented in alignment with the NeGP principle of “Centralized planning and decentralized implementation”, MHA and NCRB would play a key role in planning the program in collaboration with the police leadership within the states in the development of a few core components and in monitoring and reviewing the program. The state would drive the planning and implementation of the project at state level [4]

It states that the role of the Centre (MHA and NCRB focuses primarily around planning providing the core application software (CAS) which is to be configured and enhanced and deployed in states managing and monitoring the program at a higher level.

Following services are to be provided by system Integrator as per RFP

- Program Planning and Management
- Configuration, Customization and Extension of CAS State and integration with CAS
- Center and External Agencies
- Site preparation at Police Station and Higher offices
- Infrastructure at Client locations
- IT infrastructure at the Data Center and Disaster Recovery Center
- Data migration and data digitization
- Migration of CIPA and CCIS enabled Police Stations / Higher offices to CCTNS
- Design, execution and management of Change Management Plan for project
- Capacity Building
- Handholding support
- Adherence to standards

Core Application Software CAS (Center) and CAS (State) where at centre level it would enable NCRB to receive crime and criminal related data from states in order to meet their objective of a central level crime and criminal repository of the country some services to be offered under CAS (Center)

i) State-SCRB-NCRB Data Transfer and Management

ii) Crime and Criminal Reports
iii) Crime and Criminal Records and Query Management

iv) Talaash Service

v) Person of Interest

vi) Registered Vehicle and Vehicle of Interest Service

vii) Publication Service

viii) NCRB Citizen Interface

ix) NCRB Interface for RTI

CAS (State) covers functionality which is required at State level this would be developed in NCRB and provided to states and union territories for configuration customization and enhancement/extension main functional blocks of state version of software includes registration, Investigation, Prosecution and report search and basic reporting management.

In order for CAS to meet its goals following requirements are to be met

- Citizens Portal Service
- Petition Management Service
- Unclaimed / Abandon Property Register Service
- Complaint and FIR Management Service
- PCR Call Interface and Management Service
- Investigation Management Service
- Court and Jail Interface and Prosecution Management Service
- Crime and Criminal Records and Query Management Service
- Police Email and Messaging Service
- Periodic Crime, Law and Order Reports and Review Dashboard Service
- Notification of Alerts, Important Events, Reminders and Activity Calendar or Task Services
- State-SCRB-NCRB Data Transfer and Management Service
- State CAS Administration and Configuration Management Service
- User Help and Assistance Service
- User Feedback Tracking and Resolution Service
- Activity Log Tracking and Audit Service
- User Access and Authorization Management Service

NCRB on behalf of MHA has engaged professional Software development agency to design and develop both the versions of software after their engagement till time of final rollout the software will be managed by NCRB under the guidance of DIT, MHA, and NIC.
Role of software developing agency (SDA) in supporting CAS (core application software.

SDA will provide services for CAS for a period of three years followed by two optional one-year period will be taken in entirety by NCRB following two services will be offered by Application management services for CAS(State) which consist of following items:

- Provision of bug fixes, minor changes, error resolutions and minor enhancements.
- Minor enhancements (the usual run-of-the-mill enhancements and not the ones identified as part of Continuous Improvement).
- Change request management based on feedback from the users.
- Release Management; Version control of CAS (State) to be managed centrally, with State-specific configuration incorporated.
- Routine functional changes.
- Any changes to CAS code that may be required because of patches to licensed Software being used (if any).
- Updating and maintenance of all project documents.
- SI shall be responsible for application management services and maintenance support for additional applications, customizations and extensions at the State.

Technical program management of implementation of CAS (State)

Through technical program management SDA shall extend all the necessary support to the state system integrator

- Preparation of technical manuals to SI
- Preparation of CAS implementation toolkit that comprehensively covers details on the aspects of the CAS (State) and CAS (Center) applications

CCTNS would be implemented in 2487 locations in Uttar Pradesh Police Including State police headquarters district headquarters, Additional SP office, Circle offices, District police Stations, District police control room, City control room in 39 districts, State police control room, Investigating special units, government railway police, training institute and district training centres which would include sanctioned strength of 3,79,140 U.P police.

Data Migration/digitization this would provide an easier search and analysis and generating comparative statements and other kind of reports.

Site preparation procurement, delivery, commissioning of IT infrastructure at police and higher officer is other important part of project System Integrator would be looking into these issues.
In terms of human resource training and developing necessary skills of the staff following phases are important:

**Capacity building**

Equip direct user and other stakeholder of CCTNS with right skills and knowledge to use CCTNS

**Change management**

SI shall conduct Change management workshop to build appreciation of change management and develop change leadership across stake holder group

**Communication and awareness**

It involves two way interactive communication about the changes so that all individual in state police department understand the target vision and strategy to move forward

**Connectivity and Networking**

Networking solution of CCTNS project is a hybrid model consisting of UP state wide area network (UPSWAN) operated by Bharat Sanchar Nigam Limited (BSNL) and Data network operated by BSNL has to provide the Networking & Connectivity services. BSNL shall be providing the Networking and Connectivity services along with operation & maintenance for all locations implemented in U.P

System Integrator would be responsible for setting up and maintenance of LAN at designated office

**Handholding Staff**

System Integrator would provide a qualified and trained person per two police stations for a period of 1 year.

U.P CCTNS would be implemented in 4 phases

Following are the basic activities for CCTNS Project

a) Capacity Building
b) Infrastructure
c) Data Digitization/Migration
d) CAS (Core application software)
e) SDC (State data center)
f) Connectivity
g) Change Management
a) Capacity building carries components

I. Basic IT training
II. Role Based Training
III. Trouble shooting

b) CAS – Core application software consist of activities like

I. Handover of CAS from SDA
II. Internal Groundwork
III. CAS Customization
IV. Extension of CAS State
V. Integration with External Agencies
VI. Migration & Integration
VII. Roll out of CAS along with Extension & Customizations
VIII. Pilot of CAS

c) Data digitization consist of activities like

I. Data Digitization
II. Data Migration

d) Change Management Workshop

I. SDC (State Data Centres)
II. Handholding allocation
III. Data centre infrastructure
IV. Server Installation
V. Storage Installation
VI. Tape Library Installation
VII. Security and Network equipment
VIII. Data centre sign off
IX. BSNL connectivity

e) Infrastructure

I. Site Survey (Planned)
II. Site Preparation (Planned)
III. Material Delivery(Planned)
IV. Material & Application Installation (Planned)
V. Site Signoff(Planned)
VI. Hand holding

Following represent the Gantt chart for the activities which gives an overview of project in U.P and its deadlines as per data provided by SPMU.
Figure 1: Macro Level Gantt chart for UP CCTNS Project

Figure 2: Infrastructure, SDC connectivity gantt chart for UP CCTNS Project for Phase I
Figure 3: Capacity Building UP CCTNS Project for Phase - I

Figure 4: Infrastructure, SDC and Connectivity Gantt Chart for UP CCTNS Project for Phase - I

Figure 5: Data digitization and migration UP CCTNS project for Phase - I
Figure 6: CAS UP CCTNS project for Phase -I

Following Citizen Centric services are proposed to be provided by CCTNS after its implementation

- a. Certificate for lost document
- b. Certificate for lost phone
- c. Character antecedent Services
- d. No-objection certificate for Job
- e. No-objection certificate for vehicles
- f. Senior citizen Registration
- g. Maid Registration/Verification
- h. Tenant Verification
- i. Permission for cracker
- j. Arm License
- k. Cinematography license
- l. No objection certificate for establishments like hotel, cyber cafes, restaurants and other commercial entities
- m. No objection Certificate for installation of Petrol pumps
- n. Permission for film shooting /public meeting/dharnas/rallies /loud speakers
- o. Any other services as specified by state

4.2 Finding from the fields and impact on the theoretical focus of the project

I prepared a pert chart to study if the project is running on line or is it lacking behind the date and the underlying issues

Macro level pert chart of the project according to following deadlines which are indicated in above Gantt charts as per data of SPMU.
## Macro Level Pert Chart for CCTNS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>End</th>
<th>Duration (month)</th>
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<tbody>
<tr>
<td>Change Management</td>
<td>CM</td>
<td>01-12-2012</td>
<td>31-05-2013</td>
</tr>
<tr>
<td>Capacity Building</td>
<td>CB</td>
<td>01-07-2012</td>
<td>31-05-2014</td>
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<tr>
<td>Infrastructure</td>
<td>If</td>
<td>01-07-2012</td>
<td>31-05-2014</td>
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<tr>
<td>Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digitization/Migration</td>
<td>DD/M</td>
<td>01-07-2012</td>
<td>31-12-2013</td>
</tr>
<tr>
<td>CAS</td>
<td>CAS</td>
<td>01-09-2012</td>
<td>30-04-2013</td>
</tr>
<tr>
<td>SDC</td>
<td>SDC</td>
<td>01-09-2012</td>
<td>30-04-2013</td>
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<tr>
<td>Connectivity</td>
<td>CON</td>
<td>01-09-2012</td>
<td>31-12-2013</td>
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### State Data Centre pert chart for CCTNS

<table>
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<th>Start</th>
<th>End</th>
<th>Duration month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handholding allocation</td>
<td>HA</td>
<td>01-02-2013</td>
<td>28-02-2013</td>
</tr>
<tr>
<td>DC infra</td>
<td>DCI</td>
<td>01-08-2012</td>
<td>30-11-2012</td>
</tr>
<tr>
<td>Server Installation</td>
<td>SerI</td>
<td>01-11-2012</td>
<td>31-01-2013</td>
</tr>
<tr>
<td>Storage Installation</td>
<td>STIn</td>
<td>01-11-2012</td>
<td>31-12-2013</td>
</tr>
<tr>
<td>Tape Library Installation</td>
<td>TLI</td>
<td>01-11-2012</td>
<td>31-12-2013</td>
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Security and Network equipment
Dc sign off
BSNL connectivity

<table>
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<th>Activity</th>
<th>Start</th>
<th>End</th>
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<tbody>
<tr>
<td>SNE</td>
<td>01-11-2012</td>
<td>31-01-2013</td>
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<tr>
<td>BC</td>
<td>01-09-2012</td>
<td>30-11-2012</td>
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**Infrastructure Scheduled pert chart for CCTNS**

<table>
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<th>Start</th>
<th>End</th>
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<tr>
<td>Site Survey (Planned)</td>
<td>SS</td>
<td>01-07-2012</td>
<td>31-08-2012</td>
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<td>Site Preparation (Planned)</td>
<td>SP</td>
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<td>30-11-2012</td>
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<td>Material Delivery(Planned)</td>
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<td>31-01-2013</td>
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<td>Site Signoff(Planned)</td>
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## Capacity Building for CCTNS (Training)

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<th>End Date</th>
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</tr>
<tr>
<td>Trouble shooting</td>
<td>01-01-2012</td>
<td>28-02-2013</td>
<td>14</td>
</tr>
</tbody>
</table>

### Diagram representation
Change Management Scheduled Workshop activity pert Chart

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Start Date</th>
<th>End Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01-12-2012</td>
<td>30-06-2013</td>
<td>7</td>
</tr>
</tbody>
</table>

Data digitization/Migration Activity pert chart

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>End Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Digitization</td>
<td>01-07-2012</td>
<td>31-03-2013</td>
<td>9</td>
</tr>
<tr>
<td>Data Migration</td>
<td>01-03-2013</td>
<td>31-03-2013</td>
<td>1</td>
</tr>
</tbody>
</table>

Pert Chart for CAS rollout plan for CCTNS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>End Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handover of CAS from SDA</td>
<td>01-06-2012</td>
<td>30-06-2012</td>
<td></td>
</tr>
<tr>
<td>Internal Groundwork</td>
<td>01-07-2012</td>
<td>31-07-2012</td>
<td></td>
</tr>
<tr>
<td>CAS Customization</td>
<td>01-07-2012</td>
<td>28-02-2013</td>
<td></td>
</tr>
<tr>
<td>Extension of CAS State</td>
<td>01-07-2012</td>
<td>31-03-2013</td>
<td></td>
</tr>
<tr>
<td>Integration with External Agencies</td>
<td>01-07-2012</td>
<td>31-03-2013</td>
<td></td>
</tr>
<tr>
<td>Migration &amp; Integration</td>
<td>01-07-2012</td>
<td>28-02-2013</td>
<td></td>
</tr>
</tbody>
</table>
How much impact will IT have in improving core operation or core strategy of policing I tried to analyse it using some standard frame work one of the standard frame work is McFarlan's strategic grid[6]

Impact of IT: McFarlan's strategic grid

Where IT can have impact on operation of police department I tried to analyse it by McFarlan’s strategic grid which is a tool that helps an organization to evaluate itself whether IT system will have any improvement in the core strategy of the firm. IT can have positive impact on core operations which may help in doing things more effectively IT development should have operational improvement that may improve company's cost profile but may not be change its strategic position.

It may have impact on core strategies doing things differently which may give it a competitive advantage.

According to Mcfarlan there are four type of organization
1. Factory ➔ Where IT may have high impact today and low impact in long run
2. Strategic ➔ Where IT may have high impact today as well as high impact in future
3. Support ➔ Where IT may have low impact today as well as low impact in future.
4. Turnaround ➔ Where IT have high impact in future but low impact today

<table>
<thead>
<tr>
<th>IT Impact on Core Operations</th>
<th>Factory (Police Stations)</th>
<th>Strategic (At state or national level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Improve performance of core process/In case of Police stations it will improve core process of investigation and operations</td>
<td>Transform organization/It will strategically transform police department with better records e-governance system as we can currently see in the organizations like banks which have improved efficiency.</td>
</tr>
<tr>
<td>Leadership</td>
<td>Business unit executive/In police department district level officers will be leadership that will be affected.</td>
<td>Senior Executive and board/In police department these are State level officers</td>
</tr>
<tr>
<td>Project Management</td>
<td>Process reengineering/In police stations it will be improvement in core process hence a better project management</td>
<td>Change Management/In Police department this may help them maintain a strategically important position which may be boost efficiency as well as help bringing about strategic changes in an ordered way.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IT Impact on Core Operations</th>
<th>Support</th>
<th>Turnaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Improve local performance</td>
<td>Identify and launch new ventures</td>
</tr>
<tr>
<td>Leadership</td>
<td>Local level oversight</td>
<td>Venture incubation unit</td>
</tr>
<tr>
<td>Project Management</td>
<td>Grassroots</td>
<td>New Venture development</td>
</tr>
<tr>
<td>experimentation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on this matrix the priorities within the department and an easy tool for decision by chief officers at higher level can be determined During field visit I developed an overview over the implementation/execution of entire project in its
different mode Some issues encountered were that training consisting of basic training, role based training, troubleshooting the training has been imparted for the police officers in various districts of Uttar Pradesh. Issues involved includes lack of smooth conduction of training at various stages conduction of proper training at some instances the adequate attendance was not met to conduct smooth and peaceful conduct of training. Batches were conducted in different places without attendance due to public holidays etc. or lack of interest in officials there may be an huge amount of loss of public money. Core application software has its first version been developed and it is in testing stage issues incurred were the various citizen centric services which could be offered through this some issues like deciding this portal for different citizen centric services which could be offered through this core application software. There are two servers for hosting information one of the server is at centre and the other core application software would be at state level. Further extension in core application software included an extension module for knowledge repository and a SMS Gateway. Some issues related to It system integration involved were connectivity, latency, quality, helpdesk. BSNL has contract to ensure the connectivity of the same using VPN or Wi-max in the areas where VPM could not be provided the other quality issues in general meeting involved were latency/network down there is a 95% uptime requirement for the same. Helpdesk has to be provided for core application software there has to be a team of 5-6 people from BSNL it has to be a two way process complaints and feedback. Issues involved in the implementation of the project were the change management which has to be facilitated in an easy way without disruption.

I tried to analyse the impact of issues related to connectivity using a Pert Chart and tried identifying bottleneck activities for the same

Some agreed upon task by BSNL (Network Provider) as per Memorandum of agreement between NCRB and BSNL includes providing connectivity to State Union police stations and higher offices on 2 Mbps point to point leased line from the nearest SWAN Pop (SHQ, DHQ and BHQ) using the technology available and considered feasible and as desired by State/UT, IT shall provide modes of connectivity as per NCRB requirements. A help desk has to be created as per RFP Team at state level: A team of 1-4 person shall be kept at state level to coordinate and assist for speedy resolutions of faults. These are planned to be located at the SDC of SWAN in vicinity of the swan helpdesk

For VPNoBB: A de-centralized helpdesk for VPNoBB will be provided by BSNL

For Wimacx: A decentralized Helpdesk for Wimax/Leased line will be provided by BSNL

For VSATs: A centralized Helpdesk for Vsat will be provided by BSNL
For MPLS VPN link: A centralized helpdesk by BSNL NOC for MPLS VPN link will be provided by BSNL

Schedule for commissioning for CCTNS by BSNL

*In Gantt chart the sequence of activities from top to bottom are in same sequence in table the Date D as 9-9-12 was taken after confirming from working SPMU

<table>
<thead>
<tr>
<th>Activities between NCRB &amp; BSNL</th>
<th>Start date</th>
<th>Duration</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signing of MOA between NCRB &amp; BSNL</td>
<td>X</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>Site Details (BSNL has to provide in structured format)</td>
<td>X</td>
<td>2</td>
<td>X+2</td>
</tr>
<tr>
<td>Circulation to state and Union Territories</td>
<td>X+2</td>
<td>3</td>
<td>X+3</td>
</tr>
<tr>
<td>Providing router specification to BSNL for P2P line connectivity</td>
<td>x+3</td>
<td>4</td>
<td>x+7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Days</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>26.7.12</td>
<td>28.7.12</td>
<td>29.7.12</td>
<td>30.7.12</td>
<td>31.7.12</td>
<td>1.8.12</td>
<td>2.8.12</td>
</tr>
</tbody>
</table>

Activities to be performed by State/UT and BSNL

<table>
<thead>
<tr>
<th>Activities</th>
<th>Start date</th>
<th>Duration</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSNL to circulate the project details and signed MOA to BSNL circles</td>
<td>X+2</td>
<td>5</td>
<td>X+7</td>
</tr>
<tr>
<td>BSNL to provide nominated BSNL official responsible and single point of connectivity for CCTNS project</td>
<td>X+2</td>
<td>8</td>
<td>X+10</td>
</tr>
<tr>
<td>State /UT to provide site as per BSNL structured plan to the</td>
<td>X+3</td>
<td>12</td>
<td>X+15</td>
</tr>
</tbody>
</table>
### nominated BSNL officials

<table>
<thead>
<tr>
<th>Activity</th>
<th>Days</th>
<th>X+15</th>
<th>X+30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signing of the SLA between State/UT's and BSNL</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Feasibility survey by the respective circle and freezing type of connectivity for cctns project</td>
<td>X+15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Issue of Demand note by BSNL to State UT</td>
<td>X+30</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Acceptance of demand note by State UT</td>
<td>X+35</td>
<td>10</td>
<td>X+45=D</td>
</tr>
<tr>
<td>Finalization of IP address schemes and other policies</td>
<td>D</td>
<td>15</td>
<td>D+15</td>
</tr>
</tbody>
</table>

#### a. P2P Lease Line provisioning including Hardware

<table>
<thead>
<tr>
<th>Activity</th>
<th>Days</th>
<th>D+150</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.Delivery of hardware(Router/Modems) at sites</td>
<td>D</td>
<td>150</td>
</tr>
<tr>
<td>ii.Delivery of P2P lease line link</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Provisioning of VPNoBB Links</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Provisioning of Wi-Max Link</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Provisioning of Vsat links</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Provisioning of MPLS VPN Link at SDC</td>
<td>D</td>
<td>90</td>
</tr>
</tbody>
</table>
Intermediate target for commissioning of links

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>45</td>
<td>90</td>
<td>135</td>
<td>150</td>
<td>200</td>
<td>270</td>
<td>300</td>
</tr>
</tbody>
</table>

Using these pert charts the management can schedule process as per deadline.

During my visit to Daliganj & Hajratganj Police station the handholding staff and the Sub-Inspector reported following issues

A general diary (GD) has to be prepared and updated every 3 hours from 00:05 hrs to 24:00 hrs. This diary has to be updated continuously problem encountered is whenever there is loss of connectivity there is loss of data. The personnel has to fill in
entire GD for a continuous process since it is a continuous process this results in wastage of significant time

Communication problems are faced in police station there is no phone or mobile connection to communicate internally in department. Internet is not provided in police station, personals are using their own private phone and a personal modem for connecting to internet for their day to day work.

In Core Application software CAS designed by Wipro many article from IPC are not included from IPC (some minor acts) Similar Issues are faced resulting in loss of data of NCR,FIR and other reports to be submitted by CCTNS.

In GD the time required for timing has to be in intervals of 3 hours each since CAS do not provide for Change in time slot personals encounters problem in managing proper entry time. Many delays are incurred due to loss in connectivity.

BSNL has provided a dedicated line for hosting this application but still there is significant loss in connectivity which is affecting core process.

BSNL has to provide timely solution to problems encountered but most of the time their help line over phone does not work or the personnel do not responds this results in significant delays and if there is a mob or an unprecedented situation the operator suffers unnecessary pressure.

Electricity problem has been encountered in police stations in villages Generator sets have been provided in those places.

Training issues are encountered there are 3 constables 1 head constable provided at each police station for entry .The reporting staff says that the staff is inadequate also the time required for entry of FIR and Complaint is too much.

Handholding staff has been provided by NIIT per 2 Stations to help the personnel but the reporting official reports that he is unable to fix the bugs in software.

Processing of FIR is very slow it takes somewhere around 1 hour while manually writing of reports takes nearly 30 minutes which lead to lot of delays in work.

All the staffs is not trained training by police personnel who are already trained are asked to train remaining staff in stations

Data digitization is slow nearly 75% has been completed there are nearly 132730 data to be digitized but only y 1,01,000 has been completed since October 2011.
4.3 Gap analysis

The analysis shows that sufficient slack time has been included to complete project on time. There are few issues related to the quality of Core application software like it is slow, data loss is there due to loss in connectivity due to poor service provided by BSNL and almost incompetent helpdesk to resolve connectivity issue in proper time frame.

Poor training and motivation to change from the old legacy of manual operation is seen among employees. Change management workshop has to be very effective in tackling this.

Data digitization has been and only 75% of it has been completed. Validation of Data has been altogether left out now processing it again will take a huge amount of time and effort.

There is lack of flow of communication most of it has been from top to bottom but bottom to top flow of information does not exist which leads to many issue being not addressed by higher authority.

Quality of training and proper selection of individuals (staff) has to be taken care.

CCTNS being a premier project whose aim is to provide effective and efficient policing has been encountering such issues. The project has an estimate budget of nearly Rs.2200 crore responsible management has to be there as it carries a lot of public money and hope.

Payment Terms and Schedule of CCTNS project Payment Schedule and milestone payments are divided into

A) Implementation phase B) Operation and management phase

Payment to the bidders during the implementation phase will be made against achieving and acceptance of following milestone

Figure 7: Payment Schedule for different milestone
Payments for M1, M2, M3, M5, M7, M9, M11, M12, M13 is 5% and M4 it is 10%, M6, M8 and M10 it is 15%

Milestone and payment schedule for operation and maintenance phase. Annual lump sum cost quoted for the each year of operations will be divided into 2 equated instalments and made as 2 equal payments upon satisfactorily adhering to service level agreement.

**SI Project Plan for UP CCTNS**

Financial Summary of utilized fund

Utilization status as per data provided by working SPMU is as follows
Approximately fund utilized is nearly 30% this means that 70% funds are still to be utilized. In other words it also implies that 30% of project is remaining.
5. Recommendations, Scope and Strategy for Implementation

5.1 Recommendation & Scope
Core Application software developed by Wipro is slow and have many technical glitches. Software patches are to be corrected or changed. Auto save feature can be included in it many testing sites do include such feature.
Connectivity is an issue but with privatisation of telecom sector with many competitor completion in this domain also has to be inculcated Police department can look for other service provider who can provide better support and service as compared to traditional state service provider like BSNL.
Flow of information from top to bottom as well as from bottom to top has to be there a mechanism and environment has to be created for the same.
Staffing issue was also incurred some station with high traffic can have more number of operators and some with low traffic can have less operator
Training and Change management are basic pillars to success of this project. Training depends on one’s eagerness to learn and change youngsters who are ready for learning should be more in number proper selection of staff that might have had some exposure to computer applications etc. should be done and those people should be engaged in operating that system.

5.2 Flowchart (Strategy) for implementation

1) **Recommendation:** Implementing change management suitably to create an environment in which officials takes the new system with enthusiasm it can only done by creating awareness and a bright image of project. Having a two way flow of information from top to bottom and vice versa for feedbacks about software patches and issues associated with it. An internal flow of information is as important as flow of information to outside stakeholders. Change management as such cannot be implemented by changing an individual part of system but developing a new environment itself.

**Scope:** Improving quality of core application software feedback mechanism and immediate solution of issues

**Flowchart:**
2) **Recommendation:** Increase competition among the network provider by strict monitoring of progress of work and deadlines specified. If possible do not stick to only one provider.

**Scope:** Quality of network services and reduction of delays in services

**Flowchart:**

- Networking being a bottleneck activity deadlines have to be strictly followed
- If quality of services offered are not up to mark option of including a private player may help as it will increase competition
- BSNL accountability has to be reminded time and again to its official a push strategy may work
3) **Recommendation:** Proper Selection and training of staff who are handling CAS operations.

**Scope:** Training & Selection

**Flowchart:**

- Selection of Staff who have some exposure in handling computers instead of blindly asking anyone.

- Reduce time in operation by giving them tutorial in typing in hindi or selecting people who have already has some certified typing speed.

- Proper job Scheduling Increase number of terminal in stations who are having more reported cases and a few (2 for GD and other entries) at stations with less incidents.
6. Suggestion for future work:
Quantitative GAP analysis of various heads in project and their future estimated cost and benefits associated with it.

Creating a knowledge repository as a helping hand for researcher to understand pattern of crime and suggest remedies for the same.

Integrating HR performance appraisal with CCTNS scope and issues involved with it.
7. **Conclusion**

CCTNS I think will be one of the greatest achievements of government of India. Once it is implemented it will increase the efficiency and effectiveness of policing by providing efficiency in core operations. The very large size of police organization and the bulk of information which it carries itself makes implementation of this crime record management system difficult. It is facing lot of issues like loss of connectivity, power failure, and hardware issues. Capacity building and change management are the two important issues which should be scrutinized properly. Poor training of operating & handholding staff is immediate issues which should be sorted out soon. Quality of core application software is another important and immediate issue which should be under immediate consideration by management. Some issues like loss of data if connectivity is loss and the core application is itself being very slow has to be resolved soon.

This Project involves a lot of public money the deadlines have been decided taking a lot of slack for timely execution. Public service providers like BSNL are not committed to the deadlines decided by them Network issue has not been addressed properly even in phase I districts. Data digitization and migration has not been completed only 75% of the record have been digitized data validation has not been done.

Public organizations are itself very difficult to manage owing to its size and bureaucratic structure the flow of information is one way bottom to top flow of information of issues does not take place and hence many important issues does not get addressed at proper time which has led to many unwanted delays.

Creating an environment in which police officer feels motivated about their own work is very essential. The efficiency of working operator at terminal is in question One good way is to create a passion and motivation among them. A strong brand image of police will lead to increase in its accountability in operations and good image of police in public as in the case of army. Use of flyer posters and at workplace will increase motivation level of employees.

Bureaucratic system is good for centralized flow of information but a clan-based identity will increase team spirit it will act both in the way of creating peer pressure and a motivator. Creating such environment would increase consultation and consensus and participation in decision making. A thought can be put to understand these issues and implement changes accordingly which may increase motivation and also accountability.

Centralized crime record management system will help in quick tracking of criminal records and an easy tool for researchers to understand the crime patterns like age groups, their behavioural pattern which will help in reduction of crime. Our country in last few years have witnessed lot of crime especially against women. Rape cases
are witnessed in large numbers having a facility like CCTNS would definitely help in reducing crime rate and help in easy capture of criminals.

An effective and efficient management for its implementation is a key to the successful implementation of project. SPMU Earnest & Young, System Integrator NIIT and above all Technical services U.P Police are doing a commendable job.
8. References


[6] Impact of IT Strategy: Lecture by Professor Dr. Subir Bhattacharya, IIM Calcutta Session 2 IIM Calcutta course web.

9. Appendix A

Meetings and Interviews

Date: April 3rd, 2013

Time: 2 PM

Duration of Discussion: 60 minutes

Discussion

- Sir briefed about ACPO and IACP which provides a forum for chief police Officers to share ideas and coordinates the strategic operational response The idea is to create similar organization for officers of Department of U.P Police on similar lines
- He also discussed about National policing improvement agency that Researches and lay down rules and issues like handcuffing etc.
- There is always resistance to change in people on the one hand the people want police department to be proactive on the other hand if the department tries to do so the organization and the people resists such changes
- Managing that change is an issue Creating awareness in the department and implementing change is a gradual way so that there is not much of disruption is the question to whom the answer has to be found.
- Question on how to manage this change Implement change but gradually so that People do not react strongly.
- Other live project which is currently in progress is Crime and Criminal Tracking network and system which is an e-governance mission mode project Crime Investigation and Criminal detections It facilitates easy recording and retrieval analysis and sharing of piles of information. A team of consultants’ engineers are working of the same.

Action Items before Next Discussion

- Reading about organization ACPO IACP and other similar organization on these lines.
- Reading Request for Proposal of CCTNS getting Idea about the project so that decision could be taken on project selection
Date: April 6th, 2013

Time: 12 PM

Duration of Discussion: 60 minutes

Discussion

- The meeting went through with the discussion on the project one of the suitable title of the project decided was Crime Record Management System Crime and Criminal Tracking Network and System (CCTNS) for U.P Police force.

- We discussed over the outline of the project one of the activity which is being done is scheduling the timely activity for project the activities includes procurement, installation, Networking, Training.

- The project may involve identifying loopholes in implementing the time duration and identifying proper schedule

Action Items before Next Discussion

- Get the overview of CCTNS

Date: April 15th, 2013

Time: 11 A.M

Duration of Discussion: 60 minutes

Discussion

- We discussed about the pert chart prepared as the last task for CCTNS (Crime and Criminal tracking network and system). The detail about the sequence of activities etc.
- Pert Chart Included were of
  - Macro level Pert chart
  - Infrastructure of State Data center (SDC) connectivity
  - Capacity Building for new software
  - Change Management Workshops
  - Data Digitization
  - Core Application Software (CAS)
- Details of the Pert chart has been shared

Action Items before Next Discussion
• Creating an Excel Dashboard which gives an interactive overview of project and an interactive status report of Crime and Criminal tracking network and services (CCTNS) this would help in determining critical path for the project and further analysis may be done to reduce cost and provide a better scheduling of different activities which in turn will help in meeting deadlines

• Citizen centric Services RFP (Request for Proposal) services to be included /excluded if already existing in some other porter services included in portal consisted of following services as mentioned in RFP(Request for proposal ) document
a. View upcoming case trial dates search based on current FIR number or date
b. Ability to download copies of relevant case document e.g. FIR, Charge Sheet etc.
c. Ability to view the status of passport verification with police
d. Detailed procedure, service level and forms for availing the following Services
   • Certificate for lost document
   • Certificate for lost phone
   • Character antecedent Services
   • No-objection certificate for Job
   • No-objection certificate for vehicles
   • Senior citizen Registration
   • Maid Registration/Verification
   • Tenant Verification
   • Permission for cracker
   • Arm License
   • Cinematography license
   • No objection certificate for establishments like hotel, cyber cafes, restaurants and other commercial entities
   • No objection Certificate for installation of Petrol pumps
   • Permission for film shooting /public meeting/dharnas/rallies /loud speakers
Any other services as specified by state
As some of these services are provided by some other portals a comprehensive study could be done which could give an idea of how these services could be provided through portal in a better user friendly way.

Date: April 22nd, 2013

Time: 12 PM

Duration of Discussion: 60 minutes

Discussion

• Core application software (CAS)issues like citizen centric services offered CAS at State level and at Center level extension of CAS to include services like
performance appraisal of employees, training etc. This would help in development of better e-governance software.

- Extending module of CAS for other features like knowledge repository and SMS gateway
- During Networking meeting issues were raised like connectivity in different districts some delays were incurred.
- During implementation of IT Infrastructure issues like Latency (Network down), Handholding, Latency etc. were addressed.
- Proposal of having a two way communication channel a helpdesk for communication regarding core application software.
- During discussion extending services for core application in areas like finger print scanning, Knowledge repository for research on crimes like rape, age of victim &criminal an R&D Section can be proposed for getting trends in crime.

**Action Items before Next Discussion**

- Helpdesk Integration with core application software issues to be discussed with SPMU (Ernst and Young) and BSNL
- Documenting documents related to project including RFP, SLA with BSNL, and SPMU-Terms of reference.
- Final Draft of PERT Chart
- Further Study on Implementation of IT Systems and model like Mcfarlan strategic grid etc.

**Date:** April 29th, 2013

**Time:** 12 PM

**Duration of Discussion:** 60 minutes

**Discussion**

- Computer Aided dispatch system (CAD) an effort to implement technology a state of art infrastructure including GIS, GPS vehicle tracking system which would be increase efficiency of police system a PERT chart for same has to be prepared
- Delays in deadline by BSNL and consequently we discussed clause over delays and calculation of penalties and a new option to use other service providers
- Training of handholding staffs
- Issues in CAS (core application software) it being slow unnecessary fields etc.
- RFP has many volume and annexures and other documents related to CAS
- CCTNS has to document properly indexed so that searching key issues will be easier.

**Action Items before Next Discussion**

- PERT Chart for CAD (Computer Aided Dispatch system) this project includes use of high technology systems for tracking vehicle like GPS GIS.
• This project will increase efficiency of police force by having a quicker response time in times of various emergencies
• Documentation of RFP including indexing bookmarks of important contents of RFP which would be useful in displaying and raising up issues in meeting
• Getting deep insight into helpdesk issue and look into agreement between the concerned parties which may help in speeding up project

Date: May 6th, 2013
Time: 12 PM
Duration of Discussion: 60 minutes

Discussion

• CAS offline version was discussed it has various forms integrated
• Issue discussed were related to Validation of data Lots of data and size of lots which would help in cross verification of data
• Sampling of data (generated through computer) an appropriate methodology has to be provided Second level validation of data is required to reduce any error
• Classification of data into depending on quality and use so that it can be used for further validation.
• In RFP there has been mention of 23lakhs case to be digitized but that is just a rough estimate. In Gajeepur District there were 29 thousand cases to be digitized but number has been fluctuating to 49000 Approximately Rs. 7000 per case has been used to digitize. A study has to be done to estimate budget and time required for completion.

Action Items before Next Discussion

• A comprehensive study of budget and timelines for digitization Gazipur as model district.
• A Sampling plan to cross check data verification process

Date: May 14th, 2013
Time: 12 PM
Duration of Discussion: 60 minutes

Discussion

• Discussion was centered around CCTNS and CAD (computer aided Dispatch system) I raised issues discussed and reported in field visit report
A general diary (GD) has to be prepared and updated every 3 hours from 00:05 hrs to 24:00 hrs. This diary has to be updated continuously whenever there is loss of connectivity there is loss of data.

The personnel has to fill in entire GD for a continuous process since it is a continuous process this results in wastage of significant time.

Communication problems are faced in police station there is no phone or mobile connection to communicate internally in department. Internet is not provided in police station, personals are using their own private phone and personal modem for connecting to internet for their day to day work.

In Core Application software CAS designed by Wipro many article from IPCare not included from IPC (some minor acts) Similar Issues are faced resulting in loss of data of NCR, FIR and other reports to be submitted by CCTNS.

In GD the time required for timing has to be in intervals of 3 hours each since CAS do not provide for Change in time slot personals encounters problem in managing proper entry time. Many delays are incurred due to loss in connectivity.

BSNL has provided a dedicated line for hosting this application but still there is significant loss in connectivity which is affecting core process.

BSNL has to provide timely solution to problems encountered but most of the time their help line over phone does not work or the personnel do not respond this results in significant delays and if there is a mob or an unprecedented situation the operator suffers unnecessary pressure.

Electricity problem has been encountered in police stations in villages. Generator sets have been provided in those places.

Training issues are encountered there are 3 constables 1 head constable provided at each police station for entry. The reporting staff says that the staff is inadequate also the time required for entry of FIR and Complaint is too much.

Handholding staff has been provided by NIIT per 2 Stations to help the personnel but the reporting official reports that he is unable to fix the bugs in software.

Processing of FIR is very slow it takes somewhere around 1 hour while manually writing of reports takes nearly 30 minutes which lead to lot of delays in work.

All the staffs is not trained training by police personnel who are already trained are asked to train remaining staff in stations.

Data digitization is slow nearly 75% has been completed there are nearly 132730 data to be digitized but only y 1, 01,000 has been completed since October 2011.

**Action Items before Next Discussion**

- Budget analysis quantitative GAP analysis
Date: May 16th, 2013

Time: 12 PM

Duration of Discussion: 60 minutes

Discussion

- Government Performance is measured when government utilizes more fund in projects like JNNRUM (Jawaharlal Nehru National urban renewal mission & NREGA (National Rural employment Guarantee act)
- CCTNS (Crime and Criminal Tracking and Network Systems) is under Ministry of home affairs. This is milestone based project. There are several faces of it go-live is one among them the payment will be done after the completion of this face (Milestone Based) actor involved were Wipro/BSNL software specification
- Second payment method is delivery based like 80% payment will be done after go live. These methods effect the fiscal performance of government

Action Items before Next Discussion

- Read General financial rules of Government
- Procurement rules of government
- Get data of financial expenditure by working SPMU
- Go through RFP for bidding procedure etc.

Date: May 16th, 2013

Time: 12 PM

Duration of Discussion: 60 minutes

Discussion

- My mentor asked me to do a comparative analysis of payment mode for JNNURM NREGA and CCTNS if there are any difference .If any what are they?
- He asked me to search a bicycle which could be used for police patrol like used in other developed world with budget limit 15 k
- He asked me to look into the Citizen centric services being provided by BSNL in Punjab state and the establishment of rural response force in Gujarat.

Action Items before Next Discussion

- Look in to the above aspects and prepare final report for the end of internship period
Rakshak Foundation is a 501(c)(3) non-profit organization headquartered in Santa Clara, California. It partners with Rakshak Foundation NGO, New Delhi, India. It researches different public policy issues and creates awareness about them. Rakshak Foundation sponsors Seminars on public policy matters, sponsors activities to involve the youth in social issues including volunteerism and supports programs to help the needy. Rakshak’s Summer Internship Program is aimed at providing an opportunity to highly motivated college students to work on complex real life social/national problems under the mentorship of experts and policy makers.

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