Implementation of CCTNS Project in Tamil Nadu

The ambitious Crime and Criminals Tracking Network & System (CCTNS) project was conceived as one of the 31 Mission Mode Projects of India's National e-Governance Plan (NeGP) for transforming Police into an IT-based force and to improve the delivery of citizen-centric services. The project was approved by the Cabinet Committee on Economic Affairs (CCEA) in June 2009. The outlay of ₹ 2000 crores was made in the 11th Five Year Plan for the CCTNS project.



Dr. AMBREESH KUMARDeputy Director General, NIC
ambreesh@nic.in

A PETER THAM-BUSAMY Technical Director peter@nic.in



Edited by R. GAYATRI



odernization of the Police force through use of technology has been attempted by several states

and the Centre with varying levels of success. Some of the important examples are Crime Criminals Information System (CCIS) software by National Crime Records Bureau (NCRB), eCOPS software by Andhra Pradesh, CAARUS software by Tamil Nadu, and the Thana Crime Tracker System by West Bengal. The CCIS was an early attempt at creating a national level database of crime and criminals. The data entry, however, is carried out at the district level. Forms were filled up manually at the Police Stations and sent for data entry. These early efforts carry certain limitations:

• The focus was on data collection for the monitoring agencies to be used in statistical analysis, records management, etc.

- The system was not an integral part of the functioning at the ground level i.e. in the Police Stations.
- Manual record keeping was not reduced.
- Sharing of information was not effective.

A need to build a new system was felt in accordance to the experiences gained from the past efforts. The CCTNS project was conceived with the mission of transforming the Police into an IT-based force and to improve the delivery of citizen-centric services by enhancing the efficiency and effectiveness of the Police Stations. It is achieved by creating a platform for sharing crime and criminal related information across the Police Stations in the country.

OBJECTIVES

- Make Police Department citizen friendly and transparent by automating the functioning of Police Stations
- Improving delivery of citizencentric services by effective use of technology



- Providing Investigating Officers with tools, technology and information to facilitate investigation of crimes and detection of criminals
- Improve Police functioning in various other areas such as Law and Order, Traffic Management etc.
- Facilitate interaction and sharing of information among Police Stations, Districts, State/UT Headquarters and other Police Agencies
- Assist the Senior Police Officers in better management of Police force
- Keeping track of the progress of cases, including those pending in the courts
- Reduce manual and redundant record keeping

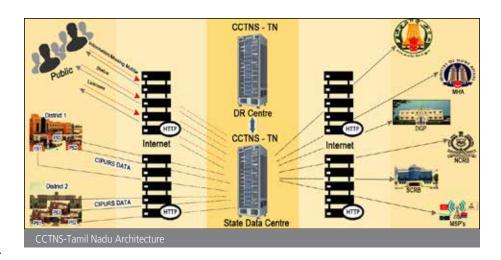
The beneficiaries of the CCTNS project are the citizens, Police Department, Ministry of Home Affairs and external departments like courts, jails, hospitals, Passport Offices, Transport Department, etc.

CCTNS-TAMIL NADU

The State Police Department has been divided into 4 Zones, 12 Ranges, 33 Districts and 6 Commissionerates and covers a total geographical area of 1.3 lakh sq kms. As per the MHA approval, the CCTNS project is to be implemented in 1482 Police Stations, 900+ Special Units and 479 higher offices, which will be a large scale implementation. Hence, a pilot phase implementation was planned to understand the requirements/ challenges at the field level and to standardise the processes/procedures. One district in each zone was selected as the Pilot District (three districts and one Commissionerate) in order to gather the experience of implementing the project in different zones.

IMPLEMENTATION STAKEHOLDERS

The CCTNS implementation in Tamil Nadu is enabled by 4 external agencies that carry out key functions.



The System Integrator (SI) for the project is NIIT Technologies Ltd (NTL). The Network Connectivity Provider is Bharat Sanchar Nigam Ltd (BSNL). The core application software, Common Integrated Police Record Updation System (CIPRUS), developed by the National Informatics Centre (NIC). The State Project Monitoring Unit (SPMU) is handled by PricewaterhouseCoopers Pvt. Ltd (PwC).

STATE CAS – CIPRUS

The approach for the CCTNS-TN provided by NIC is a hybrid model. The Client Server technology (for Police Stations) and Web technology for dissemination of crime and criminal related information to all the Supervisory Officers (from Inspector of Police to the Director General of Police) form the consolidated database of Police Stations (using the Replication software) at the State Data Centre.

The CIPRUS application developed by NIC was implemented on pilot locations from Nov, 2011 and was used for capturing 10 years legacy data of all 1482 Police Stations. More than 9 lakh legacy crime details of all stations were captured and the CIPRUS was in place at all locations from Nov, 2012. CIPRUS application was formally launched by the Hon'ble CM of Tamil Nadu on

13th March 2013. Using the system, acknowledgement for the Community Service Register was provided to the citizens by all Police Stations. Because of CIPRUS, 6 manual registers were replaced with digital registers in all the Police Stations in the state.

CIPRUS captures details of all cases registered at the Police Station and automates the process of disposing the cases, including the investigation and prosecution.

CIPRUS MODULES

- Registration
- Investigation
- Prosecution
- Staff Management
- Station Data Bank
- Query & Reports

FEATURES

- Complete integrated solution with customized NIC Linux, PostgreSQL and CIPRUS Application
- Workflow based application with 4 different roles viz., Duty Officer, Investigating Officer, Record Keeper and Station House Officer
- Provision for all type of cases like crime, L&O, accident, prohibition and other types
- Well defined 22 events for investigation of all types of cases
- Drill Down Report features for all 18 abstracts and more than 100 reports

Sl. No	Type of Cases Traced	Number of Cases Traced	Location
1	Missing Persons	1	Kanyakumari District
2	Vehicle Matching (Stolen / Recovered)	8	Madurai City
3	Passport Verification	7	Tirunelveli – 1
			Kanyakumari – 2
			Tiruvarur - 2
			Virudhu Nagar - 2
4	Driving License Verification	2	Virudhu Nagar

- Station Statistics for the SHO to get the first hand information of the station activity as and when SHO logs in to the system
- Better Staff Management System to monitor the leaves, quarter's allotment, duty roster, field duty of the Police Station officials etc.

INFRASTRUCTURE AT THE POLICE STATIONS

- 1 server + 3 client machines at all Police Stations
- Replication of the Police Station data to SDC through VPNoBroadBand/ VWiMax/Satellite Connectivity -Symmetric DS (replication tool)
- Incremental Data pushed to SDC depending on the network availability
- Retrieval of data (MIS) by higher officers using citizen portal

BENEFITS ACHIEVED

A. At Station Level

- Completed Implementation of STATE-CAS (CIPRUS) in all the 1482 Police Stations with 10 years legacy data within 2 years time as against 3 years time given by NCRB
- CIPRUS put in to use for registration, investigation and prosecution stages of the cases in all 1482 Police Stations.
- Seven different registers generated by the CIPRUS application are maintained electronically by abolishing the manual register maintenance at all the 1482 Police Stations of Tamil Nadu - FIR Index, Loose Leaf Index, Name War Index, Rowdy Register, Community Service Register, Motor Vehicle Case Register and Ordinary Petty Case Register.
- Acknowledgement provided to all the complainants/counter

complainants of Community Service Register (CSR) cases

• All reports are generated during the time of investigation viz., Seizure Mahazar, Witness Certificate, Confession Statement, Post-Mortem Report, Medical Memo, Arrest Card, Remand Reports, Inquest Report, Charge Sheet, etc.

B. Web Enabled Model for Supervisory Officers – At all levels (from station to state level)

CITIZEN SERVICES

Presently, Tamil Nadu is having a single integrated portal, both for officers and for the public, which was formally launched by the Hon'ble CM of Tamil Nadu on 13th Mary 2013.

In consonance with the twin directives from MHA and the State IT Ministry, certain services need to be provided for the public as part of e-Governance initiative. The services that are provided on the public portal as part of e-Services can be classified as:

- Online complaint to Police
- Online information to Police
- Know the status of complaints registered by the citizen
- Missing persons and unidentified dead body photos with search facility
- Matching of lost & recovered vehicles and mobiles
- Facility to apply online for certain licenses-Arms License, Gymnasium, Video Library, Browsing Centre etc.
- Mobile Tracking
- Viewing FIR/CSR status

OTHER SERVICES

Besides services, provision is made for assisting Supervisory Officers in their day to day tracking activity. Data from 1482 Police Stations is updated online using the replication tool configured at these stations which is further updated at the State Data Centre. Though there are 25 stations where no connectivity is feasible, an offline solution has been provided so that data generated from these stations can also be updated periodically depending on the volume of the data.

Till date, 26 lakh crime details and 3.58 lakh Community Service Register details are available on the Server. Around 500+ cases are entered daily on the CIPRUS application and are channelized from the SDC Server for review/query purpose.

WAY FORWARD

Efforts are in place to provide:

- E-mail/SMS alerts for the citizen and officers of the particular complaint & crime details
- Generic query on crime and criminal details
- Role based reports for review and information
- Role based dash board services
- Integration with external and internal stake holders like courts, jails etc.

SUCCESS STORIES OF CIPRUS & CCTNS PORTAL

The success of CCTNS has already been reaped by the Tamil Nadu Police. The system has enabled tracing the missing persons within 2 days. So far, 6 un-identified dead bodies were identified using the system. The process of Passport verification has been done using the Convicted Accused Search. Vehicles involved in crime are also tracked down using the portal.

For further information: SHRI P. KRISHNA PRASAD SIO & DDG NIC, Tamil Nadu State Centre E-mail: pk.prasad@nic.in