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**Madhya Pradesh Police, Home Department,
Government of Madhya Pradesh**

**“Providing Consultancy Services for ERP
solutions & ICT interventions for Madhya
Pradesh Police”**

**ICT Vision Strategy and Concept Note for
MP Police**

November 2014



TABLE OF CONTENTS

TABLE OF CONTENTS	2
1. INTRODUCTION	3
2. ABOUT MP POLICE DEPARTMENT	5
3. TECHNOLOGY IN LAW ENFORCEMENT	7
4. ICT VISION FOR MP POLICE	10
5. OVERALL ICT ECOSYSTEM	12

1. INTRODUCTION

This section details the need and the structure of the ICT Vision Strategy and Concept Note for MP Police, being done as part of the consulting assignment “Providing Consultancy Services for ERP solutions & ICT interventions for Madhya Pradesh Police”.

Information technology (IT) has come to play an increasingly significant role in the way Government Organizations conduct business, evolving from a mere tool for automation to a potential enabler of business transformation. Madhya Pradesh Police has ventured on this journey of implementing ERP systems to enable its business transformation goals with a strong belief that it will enable department to integrate operational and management processes across a broad range of internal business activities.

With a view to strengthening the State Police Department to discharge its statutory responsibilities taking benefit of Enterprise Resource Planning (ERP) Solution and Information & Communication Technology Intervention Strategy, implementation of various components and projects envisaged / identified in strategy, it is proposed to hire services of reputed, professional and competent Consultant agency to work as State ERP and ICT Projects Consultant to provide the expertise and required operational support to prepare DPR, RFP for enlistment of System Integrators, Solution Providers, vendors, service providers and Project Management and monitoring consultant.

The entire project is conceptualized in following stages:

- a) Study the existing work flow, information flow process and practices, infrastructure, resources and ongoing IT initiatives and projects of MP Police, undertake need assessment for ICT intervention in its day to day operations (other than crime investigation and records pertaining to that), and preparation of detailed project reports (DPRs) for such suitable projects as shall meet the above objectives.
- b) Design of RFP for selection of System Integrator(s) for implementation of various components of Project, preparation of various reports related to activities and timelines for their completion and selection of vendors.

1.1. Document Structure

This document is in four parts:

Section 2: About MP Police Department- This section gives a brief history of the department, its organization structure and some key statistics of the department which illustrate the its scale and size of operations.

Section 3: Technology in Law Enforcement- This section explores the importance of ICT in law enforcement and how MP Police department has, in realization of the same, implemented certain initiatives already.

Section 4: ICT Vision for MP Police- In this section, the key drivers for ICT adoption in the department are analyzed on three parameters i.e. internal parameters, field parameters and external stakeholder parameters. Taking cognizance of these drivers, the ICT vision of MP Police is spelled out at the end of this section.

Section 5: Overall ICT Ecosystem- The last section of the document takes up individual elements of the department's ICT vision and attempts to identify the various measures/ initiatives which may be undertaken to achieve the vision. The various measures and initiatives have been mapped to an implementation lifecycle extending upto 7 years.

2. ABOUT MP POLICE DEPARTMENT

MP Police is the primary law and order enforcement body of the Government in the State with presence of close to one lac employees. The department's primary head quarter is in Bhopal while there is administrative and operational presence across all divisions, districts and blocks.

Madhya Pradesh State Police setup by State Government of Madhya Pradesh owes its constitution and legitimacy to Entry 1(Public Order) and Entry 2(Police) of List II (State List) in the Seventh Schedule to the Constitution of India (Article 246).

The Police Act, 1861, the mother statute which governs setting of M.P. Police, appoints its officers, their duties and responsibilities as well as powers conferred upon them to discharge their responsibilities under Section 3 of the Police Act, 1861. The superintendence of the police throughout the general police district (State of Madhya Pradesh) vests in and is exercised by the State Government (through Home Department). According to Section 2 of the Police Act 1861, the entire police establishment under the State Govt. of Madhya Pradesh shall be deemed to be one police force. It shall be formally enrolled and shall consist of such number of offices, and men and shall be constituted in such a manner, as shall from time to time, be ordered by the State Government.

Madhya Pradesh Police with a strength of around one Lakh in all ranks spread over entire state of area 3.08 Lakh sq. km., is the principal law enforcement agency.

Prevention of crime and disorder are the two principal responsibilities of state police according to Police Act 1861. The "mission statement" of M.P. Police aims:

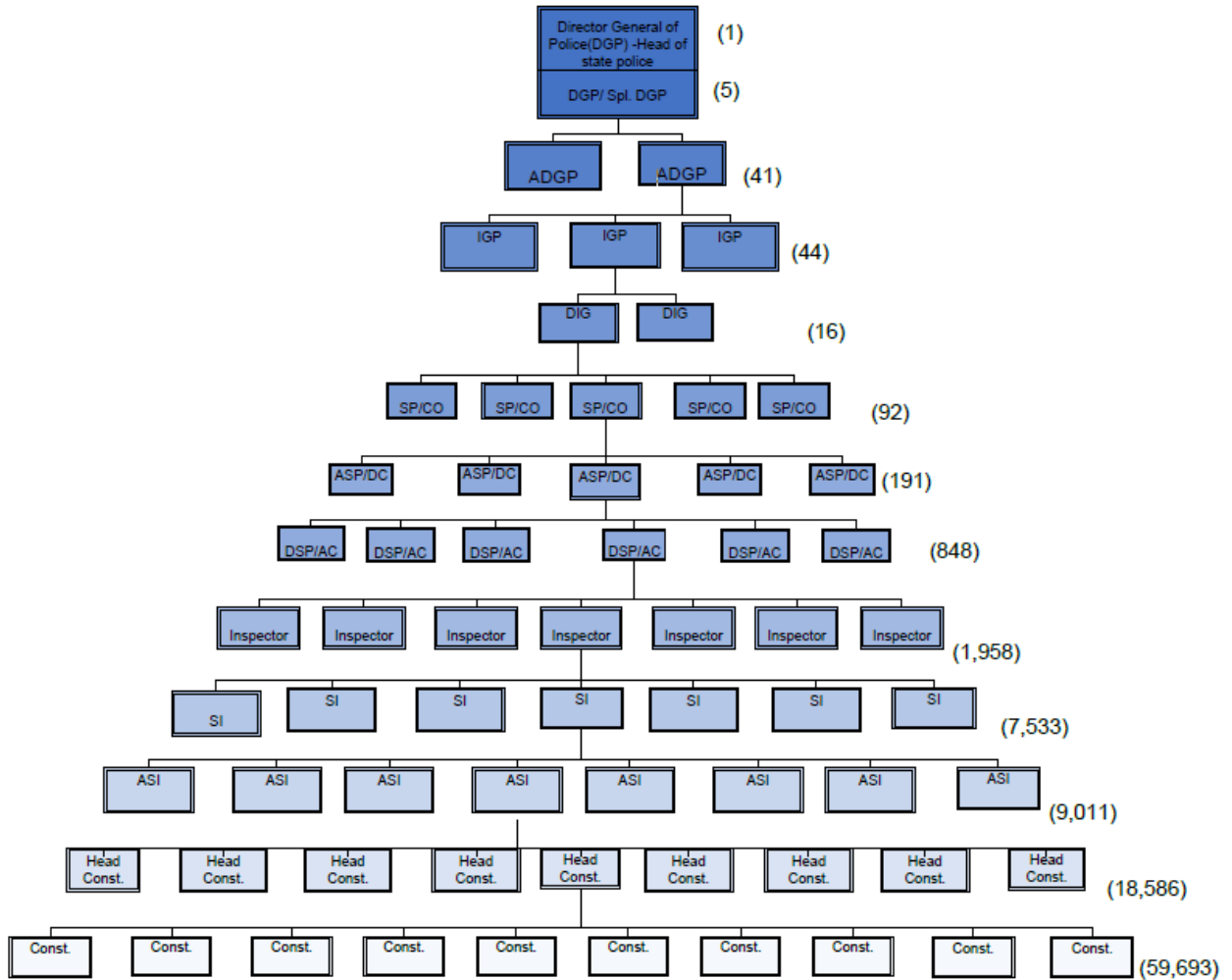
- a. To enforce rule of law
- b. To ensure safety and security of people
- c. To prevent and detect crime
- d. To attain high standard of professional excellence to ensure quality service to citizens
- e. To uphold the fundamental rights and other rights in general and weaker sections (SC/St/children/women/mentally and physically challenged) in particular.
- f. To promote efficiency and effectiveness of policing through proactive community participation and with the application of innovative cutting edge technology
- g. To promote welfare of police personnel especially at the level of junior ranks(SI/ASI/HC/Const.) in order to raise their overall morale and commitment to duty in service of society.

Madhya Pradesh Police has adopted its motto as "देशभक्ति- जनसेवा " which is the guiding light for performance of duties for excellence by police personnel in all ranks.

To achieve the various objectives set out in the "mission statement" state police organization has been divided into various territorial units (Zones, Ranges, Districts, sub-divisions and police stations) and functional units at the Head Quarter and in the field like Narcotics, AJK, CID, CAW,

STF, ATS, Hawk Force, SAF Battalions, Telecom, SCRB, Training, Intelligence, Administration, Planning, Provisioning, Complaints, Police Reforms etc.

Organization Structure and key functions



2.1. Key Statistics of MP Police

Police Department in Madhya Pradesh state is a well-structured and hierarchical organization. **Section 2** of the Police Act 1861 empowers the State Government to constitute one police force throughout the **General Police District** (covering entire territory of the state) with such number of offices and men, and it shall be constituted in such manner, as shall from time to time be ordered by the State Government.

Some of the key statistics of the department are:

Number of zonal IGs 11

Number of District SPs 50

No. of police stations 1011

Police per lakh of population 113.67

No. of PCR vans 152

Total police strength >99,000

Annual IPC Crimes >2.2 lacs

Annual SLL crimes (2012) >1 lacs

3. TECHNOLOGY IN LAW ENFORCEMENT

The law and order landscape has evolved significantly since the police act was envisioned and implemented. This has happened more so in the last 25 years than ever with growing use of technology and increased multi-national movement of people, goods & information. Given this, it becomes imperative that our law enforcement agencies remain relevant and up-to-date with this changing landscape. This has been acknowledged and actioned globally and now increasingly in India as well at both National and State levels.

3.1. Need for technology in law enforcement

As the world becomes smaller and digital, the conventional methods of law enforcement are being challenged. This is so because the both the criminal and crime landscape have undergone a sea change. Today, law enforcement agencies in India face challenge from within the country (naxals etc) as much as from outside (terrorists, infiltration etc). Police needs to investigate the physical world as well as the digital world like websites, social networks for suspects and their movements.

The need for new age technology in law enforcement is the direct result of following expectation and challenges:

Type of need	Need Factor	How technology can help
Internal efficiency	Improving the speed of processing of various files and orders within the police department within each office and between offices as well	Deploy work flow automation and ERP tools to reduce manual processes and archive information.
Internal communications	Improve voice and data communications- focus on speed and quality	Provide mobile devices to field units to access information databases and get information from backend- for mobile teams.
		Implement new age, secure, digital technologies like TETRA2
Citizen Accessibility	Police should be accessible to citizens 24x7 across various channels	Have a common one state- one number system for police implemented
		Leverage internet to let citizens file complaints, requests and anonymous information as well

		Be where the world is- Connect using social networks
Combat Security	Improve safety and ability of field personnel	Improve field equipment of personnel both in terms of combat and ability to receive & transmit information.
Field penetration	Increase coverage as much as possible in the State	Leverage technology as a force multiplier using CCTVs, detectors etc.
Intelligence	Be able to predict before an incident and investigate post incident	Follow trends, mine internet data, integrate with telecom networks for both proactive and reactive situations.

3.2. Technology status in MP Police

Technology upgradation and modernization of police is a key agenda of all Home Departments in the country, being driven by Ministry of Home Affairs Government of India as well. Both have launched multiple big and small initiatives as part of this agenda. Some of the initiatives undertaken by Government of India include:

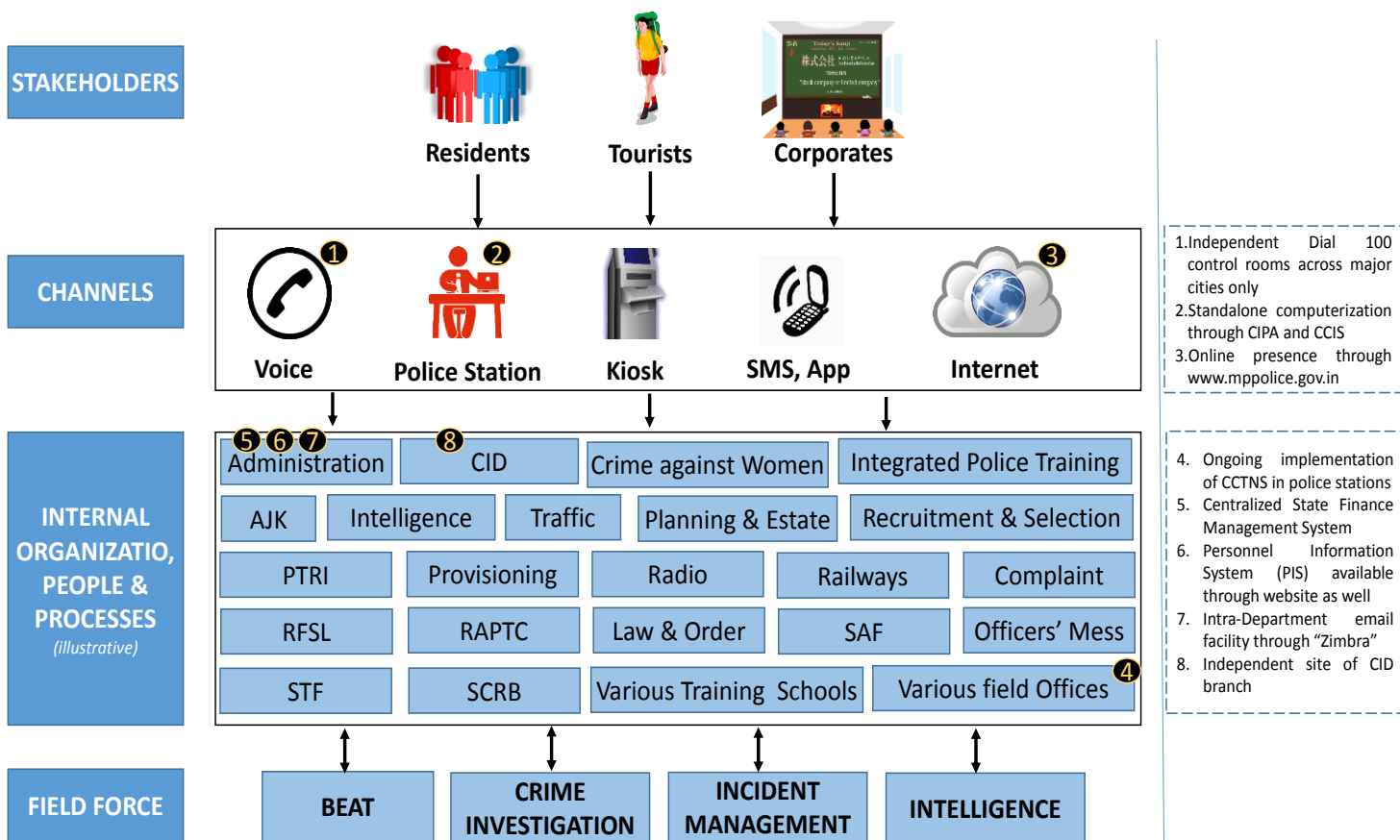
- a) **Modernization of Police Scheme:** Started in collaboration with Union Govt. has contributed very significantly to the modernization of M.P. Police in terms of infrastructure, training facilities and welfare of the police personnel. While the department is working on improving infrastructure, arms and training facilities, it has high focus on leveraging this scheme for overall technology led modernization of the department. In continuation of this, the State Govt. has approved further strengthening of State Police through an in-depth study to prepare Detailed Project Report (DPR) for the Enterprise Resource Planning (ERP) and intervention of ICT besides commissioning of a well-equipped Dial 100 facility for citizens in need of police assistance and CCTV surveillance to enhance safety and security and to improve traffic management in Cities, Towns and Highways.
- b) **Crime and Criminal Network Tracking and Systems (CCTNS);** CCTNS is a national project which aims to automate or infuse with technology certain citizen centric police processes esp those of a police station- like filing and tracking status of FIRs/ complaints, verification requests etc. It is a well thought out and elaborate extension of previous initiatives like CIPA. The project is funded by Gol but executed by respective State Police Departments.

The various other initiatives under taken by MP Police department include:

- (a) **Centralized State Finance Management System (C-SFSM),** an application provided by Treasury Department is being used at Administrative offices for payment of salary, TA/ Medical bills, GPF/DPF deductions etc.
- (b) **Personnel Information Systems (PIS)** has been developed by SCRB which is expected to have Information of all the personnel of MP Police. The system is being prepared since last 5-7 years but yet to take final shape. For transfer posting proposals a rudimentary system at Admin Branch is functioning. Efforts are being made to update the software and database but the cost and pace of keeping database update at all times requires relook into the whole strategy.
- (c) CID has setup a website <http://cid.mppolice.gov.in/> which showcases updates regarding JAB cases, missing persons and un-identified dead bodies. In addition, it has a functionality of statistical analysis of crime across the state.

- (d) Police Telecom Head Quarters have initiated projects like Dial 100, CCTV and ERP to improve upon the functioning of Police.
- (e) Email: An application with name “Zimbra” provides email service for MP Police Personnel.
- (f) The officers and staff especially at the junior level and those who are older in age and service are **not conversant** with IT operations. Also, they are reluctant/hesitant to pick up the necessary skills to various IT application gainfully in transaction of business in their branch /office.
- (g) The desktop computers are being used mostly for **word processing** (MS PowerPoint, MS Word etc.)
- (h) Minor databases of each branch is being maintained by the branch itself like Crime against women, Complaints etc.

The overall status of major computerization initiatives in MP Police can be summarized as under:



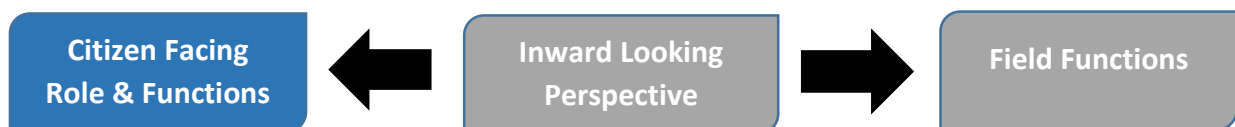
4. ICT VISION FOR MP POLICE

As the department appreciates the need to embrace technology, it is very important that a clear strategy for the department is spelled out which becomes the guiding principle for current and future initiatives of the department.

4.1. Key drivers influencing ICT vision

Before the ICT vision for MP Police is detailed, it is important to identify the key factors which need to be kept in consideration. For MP Police, the factors can be divided into three categories:

- A) **Citizen Facing Role & Functions:** It is important to understand and capture the expectations of citizens from police department and of police department from citizens. These include providing listed police services (like servant verification, tenant verification etc.) and implicit expectations of support which citizens needs from police.
- B) **Inward Looking Perspective:** The most important aspect of ICT implementation in the department, at least to start with, is the inward looking perspective. The objective of this is to identify areas of improving internal efficiencies, making work simpler so that police can focus on its core functions and lastly make information readily available.
- C) **Field Functions:** In this category we shall examine how ICT technologies can be used when the police discharges its law and order enforcement functions like crowd/ mob control, traffic enforcements, investigations, monitoring etc.



Accessibility

- Police and its services should be accessible to general public 24x7 through multiple channels including, but not limited to, voice calls, SMS, internet, physical counters etc.

Response time

- Accessibility should be made possible across the State
- Response time to accept a complaint/ FIR with little to no resistance
- Response time to service various general requests like verification
- Response time to revert to citizens/ complainants

Transparency

- Access to information on cases, where legally permissible
- Regular status update to citizens on progress of case, next steps and expected TAT for each step along with respective officer



Easy Access to information

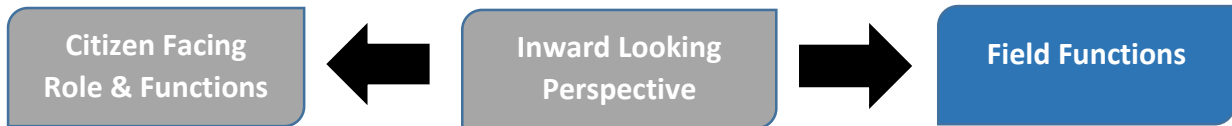
- Work flow automation as per work processes across all branches
- Availability of SOPs and processes
- Easy availability of legal expectations from various levels and branches
- User based access rights to information (classified in detail) like case information/ case files of previous cases
- Digitization of archived/ legacy data
- Pre-defined and customized reporting/ MIS

Communications

- Speedy transfer of digital files for processing
- Speedy communication between investigation teams and support functions

Standardization

- Standardization of same processes across branches/ locations/ police stations



Field Force Multiplier

- Use technology to reach locations which cannot be monitored 24x7 like State highways, critical junctions etc

Improve hygiene factors

- Provide better vehicles equipped prepared specially as force vehicles- like in difficult terrains of forests in heart of MP
- Use ICT to integrate field officers with local PS and overall department, in general- like providing access on phones

Safety

- Use ICT in situations/ locations where personnel security may be compromised or cannot reach like overall coverage of Simhastha Mela
- Use live information/ intelligence as a strategic tool

4.2. ICT Vision Statement of MP Police

Based on the above, MP Police’s ICT Vision can be summarized as follows:

“TO LEVERAGE LATEST AND SECURE INFORMATION & COMMUNICATION TECHNOLOGIES IN OVERALL ACHIEVEMENT OF DEPARTMENT’S GOALS BY IMPROVING INTERNAL OPERATIONS, MEASURING PERFORMANCE, BEING MORE ACCESSIBLE & SERVICE ORIENTED, PROMOTING TRANSPARENCY AND USE ICT AS A FORCE ENHANCER CUM MULTIPLIER”

5. OVERALL ICT ECOSYSTEM

The overall probable landscape of the department needs to be mapped, current projects marked and future projects/ initiatives identified to have a holistic ICT view of the department.

In order to action and implement the ICT vision of MP Police, two kinds of initiatives can be identified: **General Policy level initiatives** and **Specific Projects**. The overall ICT ecosystem would have various projects as the key components with policy level initiatives which would cut across the board to govern and/ or facilitate the projects.

5.1. Key Components of Vision and corresponding measures

5.1.1. “...Latest and Secure Information and Communication Technologies....”

How should it be achieved	What should be done
A. Analog and open channel communications between personnel should not be encouraged	A1. Implement digital communications like TETRA2 A2. Provide secure fixed communication lines between high ranking officers, bureaucrats and ministers
B. Knowledge sharing on latest police related/ law enforcement related technologies	B1. Organize board room and field demonstrations of latest technologies by global and Indian vendors B2. Organize open seminars/ conference/ business meets on law enforcement technologies
C. Ensure continuity of use for implemented projects	C1. Undertake monitoring and evaluation studies to evaluate impact and uptake of initiatives by police personnel and residents C2. Avoid the practice of one time budget allocation C3. Regular project evaluation by Third Party Auditors to assess project performance, improvement metrics and way forward.

5.1.2. “....Improving Internal Operations, measuring Performance....”

How should it be achieved	What should be done
D. Automated handling of communication and information	D1. Implement ERP across branches for improved data and asset management D2. Implement a robust, SOP driven, customized workflow solution across all branches- mimics Government file movement yet does not compromise on functionality, speed or procedures. This should utilize ERP as its base
E. Mandatory archival of information and ready access based on user rights	E1. Implement right based access to information across devices- fixed and mobile devices E2. Implement a cross platform MIS system for periodic and custom reports E3. Define data management and archival policies
F. Facilitate uptake of new way of working	F1. Design capacity building and change management programs F2. Implement these programs on a periodic basis to reinforce the need F3. Share improvements in performance due to ICT adoption with internal and external stakeholders
G. Measure	G1. Move beyond SLAs- Periodic Monitoring and evaluation exercise across systems, people and processes

5.1.3. “....more accessible and service oriented, promoting transparency....”

How should it be achieved	What should be done
K. Implement service oriented processes	K1. Have a turnaround time (TAT) assigned to overall processes and sub-activities K2. Have individual office dashboard and MIS-track all service requests received, pending and on-time completion K3. Implement auto-escalation mechanisms
L. Improve contact experience	L1. Provide soft skills training to all officers who come in contact with external stakeholders L2. Religiously follow processes for feedback L3. Connect with external stakeholders through social networks to spread awareness and get feedback

M. Enable access across channels

M1. Provide State wide voice access to the department through Dial 100 with PCR and personnel CAD

M1.1 Ensure Dial 100 access through non-preferred networks in blind zones

M2. Provide a comprehensive suite of information, interactive and transactional services through www.mppolice.gov.in

M3. Enable access through smartphone apps

M4. Provide a range of emergency one-touch services through smartphone apps and SMS, esp for women safety

M5. Provide kiosks at police stations for allowing citizens to give service requests like passport, verification etc without overloading station personnel

5.1.4. “...Force enhancer cum multiplier....”

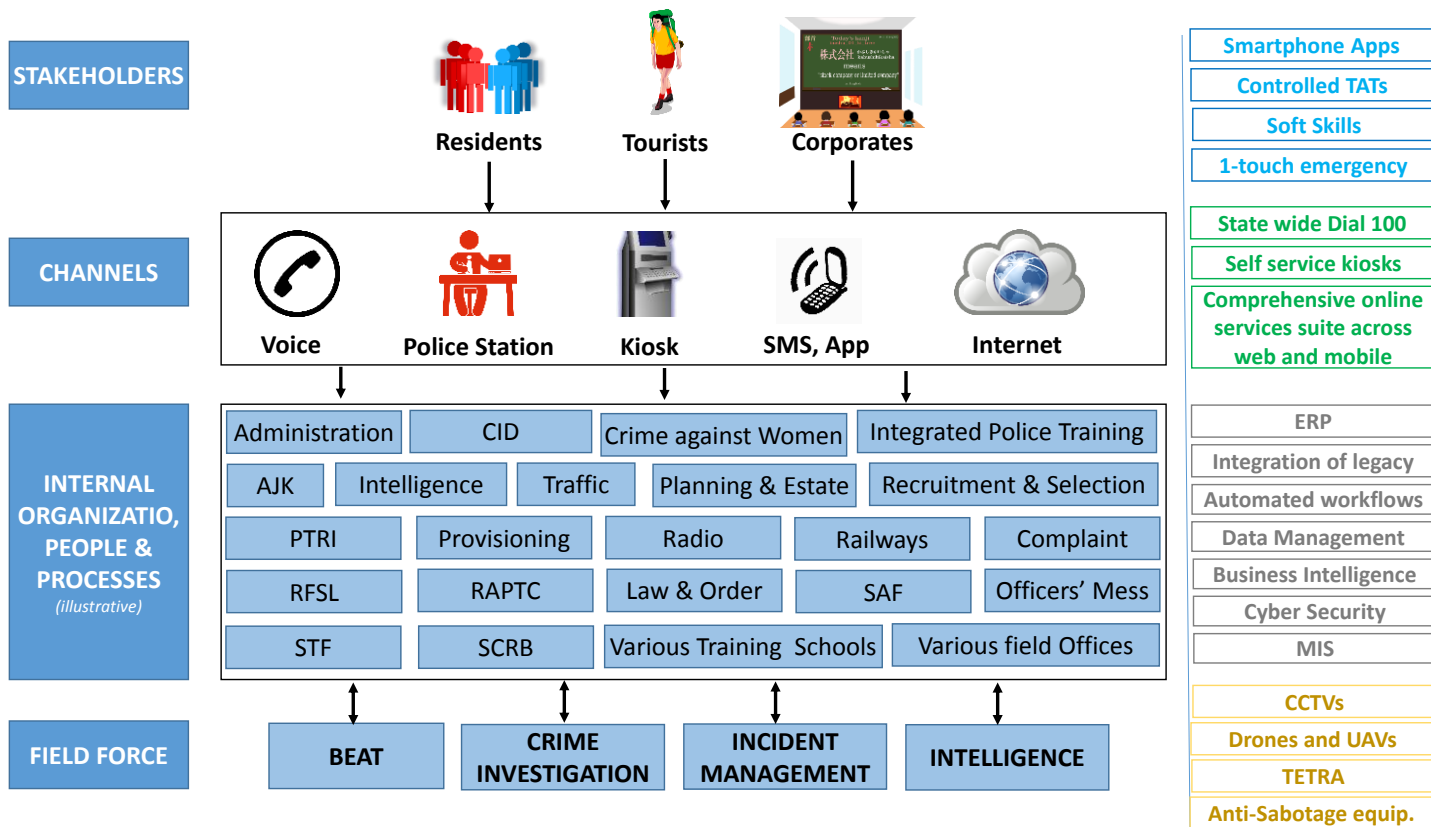
How should it be achieved	What should be done
N. Have eyes across the State	<p>N1. Implement CCTV network across all major cities and establishments across the State</p> <p>N2. Implement CCTV network across all highways (National/ State) and major arterial roads</p> <p>N3. Monitor all vehicle movements into and outside the State</p> <p>N4. Controlled to wide scale implementation of video analytics</p> <p>N5. Use latest traffic management technologies</p>
O. Tap the digital world	<p>O1. Have a cyber security policy in place for the department and for the State</p> <p>O2. Monitor case specific information in the digital world</p> <p>O3. Work with GoI for overall integration with cyber threat management</p> <p>O4. Leverage an overarching Business Intelligence application to harness the data in silos into information- Crime information, criminal information, GIS, online data, video analytics, external databases like passport, ration card, PAN, IRCTC/ Rail, bank etc.</p>
P. Be on top of events and incidents	<p>P1. Deploy drones and similar technology for places where personnel can't reach or it's not</p>

- safe- like riots, crowd control, large religious gatherings etc.
- P2. Equip beat personnel with pooled PDAs
- P3. Equip and upgrade on anti-sabotage equipment

5.2. Snapshot of vision, when implemented

The overall ecosystem of MP Police, as shown in a pictorial above, is divided into four main components viz. Stakeholders, Channels, Internal Organization and Field Force. The ICT Vision and Measures outlined above address the needs, challenges and expectations of each of these components to some extent. Some of these initiatives are already planned and underway while some are yet to be initiated. However, having said that, while the ICT Vision may continue with limited modifications, the various measures/ initiatives is dynamic list which would constantly need upgrading.

It is to be noted that the department has many projects which are already live. While the databases of each of these projects would be leveraged, it would need to be seen how these legacy applications will integrate with the latest technologies being proposed for the department. In both cases, a detailed study would have to be done regarding how each of these projects shall be dealt with.



5.3. Implementation roadmap

The implementation of above vision through the various measures listed is a 5-7 year program which can be broken down into three phase viz. 1-3 years, 3-5 years and 5-7 years. The details of the same, listing the major measures/ initiatives, are as below:

