

Chapter 34

*Computerization of Police Department of Himachal Pradesh ***

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I) OVERVIEW

The police is a state subject and its organization and working are governed by rules and regulations framed by the state government. These rules and regulations are outlined in the Police Manuals of the state police forces. Each State/Union Territory has its separate police force.

The head of the police force in the state is the Director General of Police (DGP), who is responsible to the state government for the administration of the police force in the state and for advising the government on police matters.

The State of Himachal Pradesh is divided territorially into 12 districts (administrative units). An officer of the rank of Superintendent of Police heads the district police force. A group of districts form a range, which is looked after by an officer of the rank of Deputy Inspector General of Police. Every district is divided into sub-divisions. A sub-division is under the charge of an officer of the rank of Dy.S.P. Every sub-division is further divided into a number of police stations, depending on its area, population and volume of crime.

The police station is the basic unit of police administration in a district. Under the Criminal Procedure Code, all crime has to be recorded at the police station and all preventive, investigative and law and order work is done from there.

A police station is divided into a number of beats, which are assigned to constables for patrolling, surveillance, collection of intelligence etc. The officer in charge of a police station is an Inspector of Police.

Today there are 114 Police Stations in the Himachal Pradesh including 12 PSs of SVACB, 2 PSs of TTR and 1 PS of CID. The present strength of Himachal

** * Winner of CSI e-Gov Awards, 2009-2010

Pradesh Police includes 75 IPS officers, 169 State Police Services officers, 2051 NGOs and 14789 other ranks.

Duties and Responsibilities of the Police

- Promote and preserve public order;
- Investigate crimes, apprehend the offenders where appropriate and participate in subsequent legal proceedings connected therewith;
- Identify problems and situations that are likely to result in commission of crimes;
- Reduce the opportunities for the commission of crimes through preventive patrol and other prescribed police measures;
- Aid and co-operate with other relevant agencies in implementing the prescribed measures for prevention of crimes;
- Aid individuals who are in danger of physical harm;
- Create and maintain a feeling of security in the community;
- Facilitate orderly movement of people and vehicles;
- Counsel and resolve conflicts and promote amity;
- Provide necessary services and afford relief to people in distress situations;
- Collect intelligence relating to matters affecting public peace and crimes in general including social and economic offences, national integrity and security
- Perform such other duties as may be enjoined on them by law for the time being in force.

II) RESULT INDICATORS

1. Key Performance

a. Services (G2C, G2B, G2G and G2E) delivered using ICT ; impact in terms of time and cost of delivery of services:

G2C Services

- Online Complaints/Information/FIR
- Online Traffic Challan System
- Foreigner Registration

G2G Services

- Daily Station Diary of the Police Stations
- Registration of FIR
- Investigation
- Prosecution
- Integration with Transport Department for Data of Vehicle Registration
- Content Management System (CMS)

- Quarterly Criminal Gazettes
- Crime Trends
- Annual Administration reports

Impact on Working Culture in Police Department

Effective monitoring of police working
 Transparency and efficiency in the working of Police
 Reduction in the gap of registration and disposal of Complaint
 Efficient delivery of government services to citizens
 Helping in controlling Malpractice in challan system
 No Challans remain unattended
 All FIRs records are now available online and tempering of FIR is not possible
 Proper Content Management
 Enhancing professional skills of the police personnel
 Readymade information available for the queries under RTI Act
 Availability of data for analysis of the trends in Complaint/Information
 Paper minimization.

Social Impact

Improved quality of public services
 No geographical limitation as portal is globally accessible
 Citizen Friendly Police
 Simplification of Complaint/Information registration procedures
 Fast disposal of Complaint/Information & optimal utilization of time
 Ease of making payment of traffic challans
 supporting Carbon-Credit policy of Government

Economical Impact

- The initiative saved unproductive expenditure of the police department.

b. Implementation coverage till date and during the year (geographical areas covered under pilot, roll-out, future plans)

Project started from January 2006, Initially focus was given on infrastructure/manpower development throughout the State in Police department (such providing computers along with internet connectivity in police offices, training the police personnel for using the HIMPOL)

On 1st January 2007, the project was formally launched by Hon'ble Chief Minister, Himachal Pradesh and fully operational thereafter throughout the State.

Data is automatically integrated on HIMPOL web portal which is entered through 510 police locations and being entered by the police personnel upto the level of constable (not by the IT professionals)

- Web-based interface and may be accessed globally.
- Online Police Stations: 114 (100% computerization). The police stations have been computerized in three phases. In 1st phase, only 11 police stations were computerized. In 2nd Phase, 29 more police stations were computerized. In 3rd phase (Part-I), 25 more police stations were computerized and in 3rd phase (Part-II) all remaining police stations were computerized.
- Online District Traffic Offices : 12
- All higher offices of DSP, SP, DIG, IG and Head Offices are computerized.
- Computer Training Centre: 1 (Capacity 50 persons and continuous trainings going on since 2006)
- Total Police Personnel Trained: 2500 +
- ISO 9001 Certification for Police Station Working

Future plan

In future more e-governance initiatives, like service verification, verification for grant of licenses and passports, traffic management, crime and criminal related information, tracking of foreigners etc., are being planned.

2. Government Efficiency Improvement Initiatives

a. Time and cost efficiency improvements in the working & delivery of services

Citizens

The complaint/information can be submitted online using nearest internet connected computer or Citizen may avail the free internet service at any e-Governance centre for submission of complaint/information or to know the current status. This saves time as well as money.

In case, the challan is against a person who do not belong to the place where the challan was impounded. By availing "Online Payment Facility" the amount may be paid by sitting at any corner of world and the impounded papers of his vehicle will be delivered at his door step by the police department.

Earlier, to get any type of information from the department citizen had to either visit the nearest office or ask under RTI act by paying some amount of fee and making postal expenditure. In this application, citizen can get the required information by with a click of mouse without wasting time and making any type of expenditure.

Police Department

In earlier system, to take any action on complaint/information, authority had to rely on manual way of information retrieval/action recording, which was very time consuming and involved lots of file movement procedures & paper work. Now online instant availability of complaint/information with current status to all concerned, any-time any-where, helps in fast disposal of complaint which saves a lot of time.

As online traffic challan system is in place so details of each challan are entered daily and status is updated by the department. Now all concerned can know the current status of a challan, revenue generated, challan pending at various levels etc. just by a click of mouse and no need to rely on manual way for information retrieval which in turn is saving of time & money.

All departmental notifications, orders etc. are online available so the paper wastage is minimized in the way that department need not to send the orders by post to all concerned, as it may downloaded from this portal.

b. Specific innovative ideas implemented in eGov area; and their impact on services

Innovative Ideas

- Online Complaints/Information
- Conversion of the complaint into FIR, if it has merit.
- Digitization of the FIR
- Online Traffic Challan System
- Online Registration of Foreigner
- Computerized Daily Station Diary of the Police Stations
- Computerized Record Keeping of the Investigation & Prosecution Processes at police stations
- Integration with Transport Department for Data of Vehicle Registration

Impact

- Facilitate interaction between the public & police.
- Simplify complaint/information registration procedure.
- Elimination of duplicate and inconsistent record keeping
- Facilitate maintenance of details of Criminals
- Keep track of Status of Cases
- Facilitating Investigating Officer with availability of Records.
- Facilitating supervision by the Senior Officers.
- Computerize the traffic challan management system.

- Ensuring timely availability of information to all concerned viz. police department, citizen.
- Paper minimization to support Carbon-Credit policy of Government of Himachal Pradesh
- Effective monitoring of police working.
- Transparency and efficiency in the working of Police Department.
- Provide useful & latest information related to working of police department such acts, rules & procedures.
- Readily availability of information required under the Right to Information Act.
- Use technology for enhancing professional skills of the police officers/officials besides educating the public.
- Help police department to win the friendship and trust of the people.

c. Services integrated with other departments

Integration with Transport Department for Data of Vehicle Registration

To enquire about the details of vehicle for NUMBER challan, UNCLAIMED vehicle etc., the police officials use the “Search Vehicle” facility available on the HIMPOL web portal.

III) ENABLER INDICATORS

1. Department Policy & Strategy

a. eGov/ICT vision roadmap for department and its current status

The HIMPOL is a product which has come up after various interactions among stakeholders and it implies persistence and the capacity to continue without any hurdle. It addresses the needs of all stakeholders. The HIMPOL is an ‘Investment’ which continues to produce a ‘Return’. The project is sustainable and produces a return which is not only financial.

Vision of Police Department

- No force can afford to be left behind in this age of technology. By the use of Information Technology police department has ensured better service delivery to people in general.
- The major challenge had been the traditional mind-set of Police personnel. For many years, computer had been an object inspiring awe and fear.
- Police department is progressively changing that mindset and has been able to train a sizeable part of police force in handling computers.
- Plan to promote professionalism and make the police functioning more transparent and to provide state of the art services to public.

- The IT should be used to increase efficiency and effectiveness of the department so that a citizen can live in peace without any fear whatsoever.
- In future more e-governance initiatives will be planned.
- Citizen Friendly Police supporting Carbon-Credit policy of Government

Policy environment

As ICT activities cannot be in isolation from the policy environment, the Police Department has made a suitable policy environment for implementation of the project and making it sustainable.

Constitution of Committees/Teams by the Police Department.

In order to ensure smooth implementation of HIMPOL project in the Himachal Pradesh, the following Committee/Team have been constituted by the Police Department

- (i) "State level Implementation Committee", as per the constitution suggested below:
- IG/DIG in-charge for the Police Modernization. ... Chairperson
 - State Informatics Officer of NIC State Unit.
 - Two Officers from Police Department, having computer knowledge.
 - Management Representative of the Outsourcing Agency.

"State Implementation Committee" is responsible for coordinating the computerization activities within the districts and vertical integration of data.

- (ii) "District level Implementation Team" at each of the concerned districts, as per the constitution suggested below:
- Police Head of the District. ... Chairperson
 - One Officer from DCRB.
 - District Informatics Officer, NIC District Centre.
 - One Officer from District Police having computer knowledge.
 - Supervisory person from the Outsourcing Agency.

"District level Implementation Teams" at Districts report to the State level "State level Implementation Committee", and are responsible for the computerization activities within the respective districts.

- (iii) Empanelled Agency for supplying Hardware, Training and handholdings at Police Stations.

b. To what extent the common infrastructure (national, state, other department; delivery channels) is being shared

The “HIMPOL” is a web-based application and no indirect cost is incurred by the users because of following reasons:-

Cost Effective

The “HIMPOL” system eliminates costly and wasteful distribution of printed materials and information is always up-to-date. It also eliminates expensive multi-site licenses and above all No hardware upgrade is required for accessing the web-based application “HIMPOL”.

No special configuration

No special configuration or changes are need on users PCs. Everybody should have a browser. This leads to lower costs for browser-based software – “HIMPOL”.

Centralized Data

Data is centralized, secure and easy to backup, eliminating the need to synchronize data between locations.

Easy Maintenance

The “HIMPOL” application is easy to change, and maintain. Updates can be made quickly and easily.

24X7 Access

Biggest advantage of the “HIMPOL”, users have access from anywhere in the world, 24 hours a day, 7 days a week. Employees or public located at different locations, on the road or even overseas, all have direct access to current information.

c. Technology standardization policy and its implementation

Software Architecture

The “HIMPOL” application has been developed by the National Informatics Centre, Himachal Pradesh as a web-based application in 3-tier architecture using Microsoft .NET Platform as

- Presentation Layer (Front End) using ASP.NET
- Business Logic Layer (Middleware) using VB.NET
- Data Layer (Backend) using SQL Server DBMS

The three-tier architecture has been used for better management of code and contents and to improve the performance of the web based applications.

1. The first layer Presentation contains the interface code that is going to be displayed to the user using Internet Explorer. This code would contain the ASP.NET technology that can be used on the client side like HTML, JavaScript or VBScript etc.
2. The second layer Business Logic contains all the code of the server-side technology. This layer mainly contains the code that is used for accessing the database and to query, manipulate, pass data to user interface and handle any input from the UI as well. The Business Logic layer has been divided in to two sub tiers Business and Data Access Tiers, in order to increase scalability and transparency.
 - The Business sub tier contents classes to calculate aggregated values and this tier doesn't know about any GUI controls and how to access databases. The classes of Data Access Tier will supply the needy information from the databases to this sub tier. Typically this sub layer may include code for - Instantiate an Data Access object, Retrieve the crude data, Calculate business values from the crude data.
 - The Data Access sub tier acts as an interface to Data Tier. This tier knows, how to (from which database) retrieve and store information. Typically this layer may include code for - Establish DBConnection, Create a DBCommand and the DBParameters to the command, Open the connection and execute the query, Retrieve the values from all output parameters, Close the DBConnection.
3. The third and last layer Data represents the data store i.e. SQL Server.

Removal of Top 12 OWASP Vulnerabilities

The "HIMPOL" application is safe for the following OWASP vulnerabilities:

- Un-validated Input.
- Broken Access control
- Broken Authentication and Session Management
- Browser caching
- SQL Injection
- Cross site scripting
- Denial of Service
- Error handling
- Insure storage
- Buffer Overflow
- Insecure configuration management

Using Salted MD5 as Hash Algorithm for Login Authentication

The MD5 (Message-Digest algorithm 5) has been used as cryptographic hash function with a 128-bit hash value for login authorization.

Audit Trail Mechanism

- The audit trail mechanism has been effectively implemented in this application for fixing Individual Accountability, Reconstructing Events and Intrusion Detection.
- In the application “HIMPOL”, an individual's actions has been recorded that make users to be personally accountable for their actions. This deters the users from circumventing security policies. Even if they do, they can be held accountable.
- While accessing the authorized area using the authorized Login Id and Password, a User Log (user Id, function performed by the user, client IP address, data & time of login and logout) has been maintained by the system and he has been allowed to do the work as per the role assigned to him.
- While updating the data, the user's detail and date of updation have been recorded along with the updating record.
- Efforts have been made to provide a complete history of any given transaction. The effort has been made to be able to identify each step in the process from the initiation of the transaction all the way through to the completion of the transaction.
- The amount of damage that occurred with an incident can be assessed by reviewing audit trails of system activity to pinpoint how, when, and why the incident occurred.
- Privileged access has been given for the use of application. In case of any unauthorized attempt to login the system, the login and the IP Address of the client machine will be debarred after 5 attempts. The log of each attempt has been stored in the system which helps in Intrusion detection.
- Audit trail of the authorized logged in user's actions has been maintained as per web application security guidelines. All details of authorized user's actions such as data updations, file uploads etc. have been recorded

2. Process Reengineering & Legal Reforms

a. Major front end process changes planned and current status

	Major front end process changes planned and current status	Major back end process changes planned and current status
(1)	Online Complaint/Information	Progressive actions taken on

<p>Online complaints/ Information/FIR</p>	<p>may be lodged by citizen in two ways:</p> <p>a) <u>Personally visiting Police Station:</u> The Complaint/Information is entered by the police personnel into online system.</p> <p>b) <u>Using HIMPOL Citizen Interface without visiting Police Station:</u> Citizen may submit Complaint/Information directly using HIMPOL web-portal.</p> <p>The citizen may know the current status of his complaint online using HIMPOL portal. The citizen may take a print of the FIR from the HIMPOL web-portal.</p>	<p>complaint/information are entered online by the concerned police personnel at Police Station into HIMPOL web-portal until it is disposed off. After verifying the facts, the SHO converts the complaint into FIR (if required). The FIR details are available online on the HIMPOL web-portal, which can not be tempered.</p>
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Online Data for HP State since 1st January 2007	
Number of FIR	59348
% of Complaints converted into FIR	25 %

<p>(2) Online Traffic Challan System</p>	<p>The payment of Traffic Challan may be made by public using any one of the following ways:</p> <p>Online Cash counters at Traffic Offices</p> <p>Cash Deposit in A/C No. 30119774966 in any Core Banking Branch of SBI</p> <p>Using Credit Card (Police agreement with for Payment Gateway with HDFC)</p>	<p>All traffic challans made by the concerned police officials are sent to the nearest police stations/traffic office by every evening for entering into HIMPOL web portal. Thereafter the traffic challans are available online to the public.</p> <p>Auto compounding of Challan Fees as there is a master of acts/sections in the HIMPOL web-portal against which challan fees is fixed.</p> <p>If the citizen opts for sending the seized documents by post, the postal charges are also automatically added to the challan</p>
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		<p>fees.</p> <p>To enquire about the details of vehicle for NUMBER challan, UNCLAIMED vehicle etc., the police officials use the "Search Vehicle" facility available on the HIMPOL web portal.</p>								
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(3) Content Management System (CMS)	<p>Various information is available to the citizens such as Guidelines & Tips for Public/Tourists / Foreigners, Community Policing Schemes Launched By H.P Police, Orders, Notifications, Tenders, Forms etc.</p>	<p>Various documents are uploaded online using CMS facility available on HIMPOL web portal, which were earlier sent to all concerned offices (510 police offices), departments and individuals as hard copies by post. It also saved unproductive expenditure on papers & postage.</p> <p>Online Orders, notifications: It saves 30 lacs rupees of the police department per annum.</p> <p>Online Quarterly Criminal Gazettes and Annual Reports: It saves 5 lacs rupees of the police department per annum as thousands of copies earlier were to be distributed to various locations.</p>								
(4) Foreigner Registration	<p>Online submission of the C - Form (Foreigners Registration) by the owners of the Hotels/Houses.</p>	<p>Record Keeping and automatic generation of various reports such as number of foreigners visited the state in a particular period, their stay and movement details etc.</p>								

3. Capacity Building

a. Leadership support & visibility and current status

- Under the leadership of the Director General of Police Himachal Pradesh, the Police department has done quite well and progress is creditworthy. The 100% computerization is far ahead of the national average which is around 35% for which the efforts of the top management have received appreciation at many forums.
- The “State Empowered Committee” of Police has planned to promote professionalism and make the police functioning more transparent so that the police department is able to provide state of the art services to public. The IT has to be used to increase efficiency and effectiveness of the department so that a citizen can live in peace without any fear whatsoever. In future more e-governance initiatives, like service verification, verification for grant of licenses and passports, traffic management, crime and criminal related information, tracking of foreigners etc., are being planned.

b. Change management strategy defined and status thereof

- The major challenge had been the traditional mind-set of Police personnel. For many years, computer had been an object inspiring awe and fear. We are progressively changing that mindset and have been able to train a sizeable part of our force in handling computers.
- Connectivity is the other issue. We have achieved 100% computerization of Police Stations. A majority of Police Stations have already been connected through Broadband and HIMSWAN. Some of the Police Stations are located in far flung areas where connectivity is through VSAT only.

c. Capacity building plan and its implementation status

- As sustainability of the ICT project is affected by the human resources available to undertake the ICT activities, therefore many workshops/trainings conducted at State level on “HIMPOL” and initially 3-4 master trainers for each district had been created. These master trainers had further provided the necessary training to the field staff of police departments.
- The District Informatics Officers of the concerned district are technically assisting the staff of police department in using the “HIMPOL” application.
- The Supervisor level persons, placed from outsource Agency at District level, were imparted training by the “State Development Team” on software and , who were then responsible for imparting training on software to the Handholding Persons, placed full-time by the outsource Agency at each Police Station for the specified period.

- The Handholding Persons placed at each Police Station were then responsible for imparting necessary on-job training both on Office Automation Software and the specific Software to the identified operational staff and the supervisory officers of the Police Stations.
- The appropriate Material e.g. Booklets, Brochures etc. on Software were also provided during training to the police personnel.
- Establishment of Computer Training Centre with capacity of 50 persons and continuous trainings are going on since 2006.
- More than 2500 police personnel have been well trained in computerization of police department.
- Data is automatically integrated on HIMPOL web portal which is entered through 510 police locations and being entered by the police personnel upto the level of constable (not by the IT professionals)

d. Are the Program Management Teams there full time (department officials/ consultants)

The Police Department is itself performing all activities in regular consultation with National Informatics Centre, Himachal Pradesh.

No software agency is appointed for providing services. It has a major impact on cost saving.

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