Chapter 3

State Level E-governance Initiatives

The present chapter is about ICT (IT) and E-governance initiatives taken by the NIC and HP government at macro level i.e. State level. The NIC is the main technical organisation in the State helping the various State government agencies/departments in giving consultancy, and developing various computerised applications and E-governance applications. The State government has prepared its own IT policy with the help of NASSCOM. Recently, endeavours are on within the government to create a separate IT directorate to speed up the process of E-governance.

3.1 General Description of Himachal Pradesh

Himachal Pradesh is a northwestern State of Indian Union (Annexure II). Before independence of India, the feudal rulers ruled the State and these rulers used to rule their respected States under British suzerainty. The British rule looked at these States as ‘Protected Hill States’ and these States formed centrally administered Chief Commissioner’s province. After independence of India, the State came into being as a Part-C State of Indian Union on April 15, 1948 by integrating 30 big and small hill States. In 1964, the State of Bilaspur was integrated within HP and in 1966 four districts of Punjab were also merged with Himachal. The State was made as full-fledged State on January 25, 1971. Shimla is the capital of HP and at present there are 12 districts in the State, 52 sub-divisions, 75 Development Blocks, 75 tehsils and 34 sub-tehsils in Himachal Pradesh. Besides having democratic representative government in the State, the State has enacted legislation for three tier Panchayati Raj Institutions and the process of devolution the powers to local bodies is in the progress. In the State there are 3,037 Panchayats, 75 Block Smitis and 12 Zila Parishads.

The State is spread over an area of 55,673 square kilometers as a part of Himalayas. The State’s geographical topology is mountainous with altitudes ranging from 350 meters to 6,975 meters above the mean sea level. The area can be divided into three zones — outer (lower) Himalayas, inner Himalayas and greater Himalayas (Alpine Zone). The State has climatic conditions ranging from sub-tropical to sub-artic and some areas remain under perpetual snow. The snow bound areas remains physically cut-off from the world during winter. The geographical variations of the topology have affected the human life in many ways. The four districts of the State namely Solan, Bilaspur,
Hamirpur, Una and Kangra have low hill terrains and being closer to Haryana and Punjab are exposed to a fast changing society and economic environment. The other districts are less exposed to the outer world. The State has population of 60,70,305. The population density is 109 persons per square kilometer. There are wide variations of population density; the Lahaul -Spiti district has the largest area and smallest population density of 2 persons per square kilometer whereas Hamirpur district has smallest area and population density of 369 persons per square kilometer. The mountainous topography and challenging climatic conditions make the cost of construction and maintenance of infrastructure extremely high. Even the employees perceive their postings as punishment postings in some regions of the State!

The 90 per cent of the population live in rural areas and agriculture/horticulture is the main occupation of 67 per cent population. The per-capita agriculture produce is quite low of the State in comparison to other States. This is because of low productivity in agriculture as the transportation costs of agricultural inputs are high and agriculture dependents on rains. There are 16,807 inhabited villages (10,36996 families, 28% families are below poverty line) and 90% of the villages have population less than 1000 people. 7,897 (47 per cent) villages are connected by roads. According to the government reports the State has 100 per cent electrification and the State government is now paying attention to improvement in distribution system and towards intensive electrification.

The literacy rate of the State is 77.13 percent (compared to National literacy rate of 65.4 per cent). As a by product of high literacy rate the unemployment rate is increasing in the State. Himachal Pradesh is ranked number 8 in per capita income and per capita education and health facilities are quite high compared to other States. However during these findings an important factor that how much distance a person has to cover to avail these facilities is not taken into account.

The financial health of the State is not in good shape. According to the CAG report for the year ended on March 31, 2002, the revenue expenditure of the State was 4,576 crore rupees whereas the revenue receipt was 3,716 rupees. Thus there was a revenue deficit of 860 crore rupees. The State is under debt of 15000 crore rupees. The major sources of revenue for the State comprised grants-in-aid from Central government, tax revenue, non-tax revenue, State’s share of Union taxes in descending order of amounts. The major sources of tax revenue were taxes on sales/trade (32 per cent), State excise (21 per cent), taxes on vehicles (12 per cent), land revenue (5 per cent), stamps and registration fees (3 per cent). Since the State is reeling under resource crunch, the
government has taken various austerity measures like checking of misuse of official vehicles, reducing frequency of movement of government vehicles, ban on recruitment etc. Besides the State is trying to boost its economy by harnessing its vast hydroelectricity generation potential with the help of private partners (estimated potential 20,000MW out of which about 4000MW harnessed) and by encouraging tourism industry in the State because the State has quite high tourism attractions due to the diverse geography.

So far as the State income is concerned, the share of agriculture including horticulture and animal husbandry in the Gross State Domestic Product at current prices (GSDP) has declined from 35 per cent in 1990-1991 to 25 per cent in 2002-2003. However, despite the decline in GSDP share in agriculture, the importance of this sector is important in the economy because 67 per cent population is engaged in this sector and this sector ‘has overall impact on other sectors via input linkages, employment, trade etc.’ Also as the Himachal Pradesh has potential for horticulture especially apples and off-season vegetables, the State government lays much emphasis on this sector. The secondary sector share in the GSDP has improved from 27 per cent in 1991 to 34 per cent in 2003-2004. The tertiary sector share has increased from 38 per cent in 1990-1991 to 41 per cent of the SDGP in 2003-2004.

For the annual plan 2003-2004, the State government has earmarked about 1335 crore rupees out of which the allocations for major heads are: 100 crore rupees for agriculture and allied services; 32 crore rupees for rural development including developmental, rural employment and land reforms schemes; 234 crore rupees for transport including roads and bridges and transport; 155 crore rupees for power, 613 crore rupees for social services which include education, health, welfare of weaker sections, and 3.5 crore rupees for publicity; 93 crore rupees for general economic services and general services which include 1 crore rupees for stationery etc.

There are 9, 16,775 unemployed applicants registered in various employment exchanges of the State and this is 15 per cent of the total population of the State. The government sector is the preferable choice of most of the job seekers in the State. The State has 1, 44,446 HP government employees consisting of 8415 gazetted and 1, 36,031 non-gazetted employees. The largest number of regular employees including all categories are in education department (59,466) and some of the other departments in descending order of number of regular employees are police (11, 814), health (11,611), public works (8884), forest (7057), animal husbandry (3913), water supply (3910), revenue (3566), rural development (2524) and agriculture (2350). The number of
employees in the Secretariat is 1739 and district administration has 2906 employees.\(^{50}\) During our visits to the various departments the departmental heads lamented of understaffing.

BSNL is the major telecom operator in the State. At present in the Himachal there are 4,68,270 private landline telephone connections, 16,589 VPTs, 7854 STD PCOs, 16,589 Internet connections and 81,674 mobile connections. The BSNL has its operations spread to all revenue districts, sub-divisions and *tehsil* and *block* headquarters. The BSNL is also providing ISDN connectivity, WLL, SMS on landline and Managed Leased Line Network and CLI Internet facility (last three for Shimla city only).\(^{51}\)

### 3.2 Evolution of IT in the State

The deployment of IT in the State started in 1985 with the setting up of the Himachal Pradesh State Electronics Corporation (HPSEDC). The HPSEDC had collaboration with CMC Ltd. (then government of India Undertaking). The HPSEDC was set-up at a time when there was a rush within the various States in the country to earn profits from evolutionary electronics sector by setting-up electronics industries in the public sector (prior to the privatization era) viz. Keltron of Kerala, Uptron of UP, Hartron of Haryana etc. The HPSEDC besides acting as interface between the State government and electronics industries in the State also started computerisation activities. It initiated the work in the data processing and supply, installation and maintenance of computer hardware in the State. In 1986, the government of HP designated the Director of Planning department as ex-officio member of computerisation in the State. For computer installation or software development and purchase HPSEDC remained the sole consultancy wing for the government.

The real presence of IT deployment in the State started in the State when NIC was set-up in the State commensurate with establishment of NIC at Central level in India. Prior to the setting-up the NIC operations in HP, the computerisation in the State was very limited in nature. The computerisation efforts were just limited at the State capital and limited to specific applications. The HPSEDC had the sole expertise to do the data processing jobs. On November 9, 1987 a MoU was signed between the NIC and the

\(^{50}\) The information provided in this paragraph and previous paragraphs of this section has been compiled from latest documents available from Department of Economics and Statistical (statistics upto 2002, Annual Planning Report 2003-2004 from HP Planning Department, CAG Report 2002-2003 and HDR 2002 of HP compiled by Planning Department, HP.

\(^{51}\) Source: information supplied for general publicity by the BSNL with telephone bills for the month of April, 2004.
State government to spread computerisation culture in the State. The salient feature of this MoU was that the NIC would set-up computer centres at the State headquarters and at all the district headquarters, and all these centres would be connected through satellite-based network amongst themselves and to the Central NIC headquarters at Delhi through NIC network called NICNET. With the understanding on MoU the computer centres of NIC became operational by November, 1989, at the State headquarters and at all the districts headquarters. According to the MoU there would be 18 responsibilities and rights of the NIC and 11 of the State government (Annexure III). The major responsibilities of the NIC were/are:

- The Site preparation, Hardware, Software and Manpower requirements for setting-up the NIC Computer Centres, including NICNET connectivity, in the State.
- Application Software development for the State government Departments, as per their Computerisation requirement.
- Imparting training to the State government employees for computer usage and application software packages.

And the major responsibilities of the State were/are:

- For setting up computer facilities, the State government would provide necessary accommodation.
- Bear all expenditure towards Civil and Electrical works and air-conditioning equipment towards the establishment of computer terminals at Users end.
- Bear the running expenditure towards the electrical power, water supply and maintenance of the Computer Centers.
- Collection of data, its entry /preparation and validation would be entirely the responsibility of the State. This has to be in conformity with information standardization and compatibility as per guidelines issued by NIC from time to time.

Although the NIC is the main player having direct understanding with the State government to deploy and to innovate ICT applications in the State, yet there are other organisations which are also proliferating, partially, IT culture in the State. Another Central government organisation called RCC (Regional Computer Centre ), now DOEACC, became operational in the State Capital from April 10, 1995 which was inaugurated by the then chief Minister with the motto to ‘spread computer culture in Himachal Pradesh’. This organisation is involved in providing consultancy for IT solutions, software development, developing turnkey projects and giving computer
education and training the government personnel. This organisation is a profit making
organisation and all the services are charged whereas NIC does not charge for computer
services from the State government departments. The STPI (Software Technology Park
of India) has also set-up its data communication facilities in the State Capital. The STPI
provides various flexible ways to avail Internet connectivity through its centre. The STPI
provides radio link facility for Internet access on radio link for locations situated within
20 Kilometres arial radius from its location in the capital on point-to- point and point-to-
multipoint basis. The customer premises can avail through this facilities high speed data
communication links of 64Kbps upto 2Mbps for communications abroad as leased line.
The leased line facility can be availed as integer multiple of 64Kbps or integer multiple
of 2048Kbps. The customer can also avail through STPI shared Internet connections. A
leased line can also be hired by the customer from DoT (now BSNL) and connected to
STPI Internet gateway. ISDN lease line of 64Kbps or 128Kbps as BRI or dial-up
connectivity through PSTN lines is also provided by STPI.

Besides the above organisations, the State HP University also has been running
MCA degree programmes and diploma programmes in computer (closed in 2001) for
manpower training. Five polytechnic in the State and 14 ITIs are also running diploma
courses in computer educations. Numerous computer education institutes in private
sector are also instrumental throughout the State to impart informal computer education.

3.3 NIC Infrastructure and Services

As said above NIC is the main actor in helping the State government in the field of ICT
policy and implementation. The NIC procure various hardware equipments either on its
own or through HP government as per need. The software for government departments
are developed and installed free of cost. The operations of NIC are carried out by its
technical manpower of 42 personnel in the State (and 5 administrative personnel at the
State headquarters). There are 13 personnel working at the State NIC unit in HP
Secretariat and rest are in district and other computer centres of the NIC. The State NIC
unit is headed by the State Informatics Officer (SIO). At State unit of the NIC, under the
SIO are Sr. Systems Analysts, Systems Analyst, Programmers and Programmers
Assistants. The NIC technical personnel in the State unit are divided into two groups;
one which looks after hardware and connectivity and the other who looks after software
applications development. At each of the 12 district NIC units in the State are two
personnel posted; District Informatics Officer (DIO) and District Informatics Associate
(DIA, earlier called as Programmer Assistant).
3.3.1 Infrastructure

The NIC started its operations in the end of the 1980s and the machines it used were centralised UNIX based machines connected to character based terminals and 386 PCs. These centralised machines are still being used in HP Secretariat and in some districts to some limited purposes for example diary and dispatch sections and in treasury departments. The NIC has been periodically upgrading its hardware and the State government also provides finances to upgrade machines. By the mid of 2000 at the Secretariat level there were five Pentium servers in the Secretariat (having 90 MHz /150 MHz speed, 128/32MB RAM, 2*2GB/2GB hard disks and UNIXWARE /Windows NT operating systems). There were 162 GIST terminals and around 16 client machines installed in all three bullrings of the State. Out of the 162 GIST terminals 24 terminals were exclusively provided for the CM office. There were around 35 Dot Matrix Printers provided in the Secretariat buildings. The Secretariat buildings were put on the thick Ethernet LAN in 1995. Before this there were only centralised server connected to character based GIST terminals. The connectivity on NICNET was on one Ku-band IP-Advantage (IPA) VSAT. The Direct-PC port of the IPA had been connected to a Client system under Windows95. The Ethernet port of the IPA had been connected to the Secretariat for providing Internet and SMTP/POP Email Services through the Domain Name Server (DNS), named as ‘hp.nic.in’, also installed at the NIC H.P. State Unit. A Line Terminal Server (LTS or hub) had been connected to this Mail Server, with 8 number of telephone lines terminating on the LTS through Modems for providing POP Email Services on the dialup lines also. By the November 2003, there were 6 servers- 3 Pentium-II in the Secretariat. The number of GIST terminals and Dot Matrix Printers remained the same however total number of clients rose to 32 from 16. The Ethernet LAN also remains the same. Extra requirements of hardware are met by the State government, if any.

The connectivity status of the NIC has also been upgraded. In the beginning of the NIC there was C-200 C-band VSAT connectivity running around at 9.6Kbps or below speed. At present the NICNET connectivity has been provided in the Secretariat LAN by installing 2 Ku-band SCPC VSATSs - PAMA (128Kbps bandwidth) and DAMA (dynamically varied bandwidth - for extending the INTERNET access and E-mail facilities in the Secretariat LAN. The E-mail/INTERNET facility is also extended on Dial-up telephone lines. There are 8 number of telephone lines available for this purpose. The Video Conferencing facility has been installed through DAMA VSAT.
The NIC has also taken a leased line of 256Kbps from the BSNL. The leased line runs from State NIC unit upto NICNET router at Chandigarh; from there it is connected to NICNET.

Almost similar kind of hardware had been provided at the district NIC centres. However the State government has upgraded the hardware facilities by mobilising funds under various schemes. The connectivity at district level by 1999 was on Ku-band by Direct PC except Lahaul-Spiti were still old VSAT asynchronous communications continued. By mid 2003, each District had IPA VSAT connectivity (64Kbps). AT present the connectivity at the entire district NIC units has been upgraded to DirectWay with an assured bandwidth of 32Kbps. Two districts, Mandi and Kangra, had additionally DAMA VSAT for video-conferencing. The NICNET has been changed from X.25 WAN to TCP/IP Internet WAN.

The NIC constantly keep on upgrading its software as per need. According to an NIC technical employee NIC has almost all the required softwares including operating systems, languages and standard office software. Any required software is provided by the NIC Headquarters in Delhi whenever new application is to be implemented in any department in the State.

### 3.3.2 Services

In addition to the usage of the NIC infrastructure by the State employees, the NIC also extends free consultancy to the State for procuring and installing hardware and software at different departments and develop computerised software applications for these departments. The hardware and software procurement by various departments can be done through NICSI (NIC Services Inc.). The NIC provides charged as well as free Website hosting of the different departments. The charged hosting is done if the department wants its own unique URL. If the department wants to use NIC Website to keep its Web information as part of NIC Website than no charging is done.

The NIC also provides dial-up connectivity for Internet to various departments free of cost. Various Internet services like FTP, Telnet and Remote Login are provided to the State government for data exchange amongst District, State and Centre governments.

Standard office software viz. word-processor, spread sheets etc. and department specific software for automation are also provided by the NIC to the State government. NIC takes State and Centre initiated software projects for development and

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52 Most of the personnel told that leased line is of this rating, few told it is of 2 Mbps.
implementation in the State. The NIC has not only its computer centres at State or District headquarters but it has also set-up computer centres and computerised applications at State High Court, District Courts, HP Assembly, and Rural Development Directorate etc. An exclusive Centre for training the employees at Himachal Institute of Public administration is also supported by NIC in terms of course design and manpower providing. NIC has/is developing software applications for the HP State. The NIC has formulated E-governance Policy for the State as well.53

3.4 State IT Policy

The HP State has come up with an IT Policy -2001 with an IT vision upto 2010. This IT policy is prepared jointly by NIC State unit, State government' DoIT and NASSCOM. The DoIT and its IT Policy lay emphasis on the emerging role of IT industry in service sector in industrialised and developing countries. It points out that there is need to use IT for sustainable economic growth and the proliferation of IT in India, can aid in developing a powerful economy, given the success of IT in India. The introduction says, “Most industrialized countries and an increasing number of newly industrialized countries use new information technology in key areas like macro-economic planning and decision making, public administration, education, health-care, manufacturing, finance and banking, transportation, commerce, publishing, energy conservation and environmental management.” The IT Policy can be divided in four units and the salient features of the Policy vis-à-vis our study are given in following sub-sections.

3.4.1 Unit I

This unit is introductory in nature and talks of importance of IT broadly as follows:

- Alleviating information poverty by accessing global knowledge, sharing local information resources (globally) and empowering private sector with public information.
- Enhancing competitiveness by ‘leapfrog’ and ushering in IT (using low cost PCs, set-top boxes and Internet), introducing managerial techniques and redesigning business processes.

53 Based on personal communications with NIC personnel and documents accessed from NIC Himachal Website: http://himachal.nic.in
• Improving public sector management by extending basic services to vast population, improving public policy, promoting transparency, promoting national consensus, broad participation and social learning.
• Improving education by increasing literacy level, using education as a major tool for improving quality of life, employment.
• Improving healthcare for citizens including that for remote areas.
• Improving government-citizen interface by transparency (right to information) and efficient administration.

3.4.2 Unit II
This unit is about NASSCOM's revenue projection from IT in HP. The NASSCOM surveyed 11 cities/towns to find out the relative advantages/disadvantages of these cities/towns to attract IT investments. These cities/towns are Bangalore, Bhubaneshwar, Calcutta, Chennai, Delhi, Ghandinagar, Hyderabad, Mumbai, Pune, Trivandrum and Shimla. The NASSCOM found HP as having excellent ratings among power supply, climate and attitude of the State government. The communication facilities, cost involved in setting-up IT industry and quality of life were also found commendable. However there was need to upgrade current infrastructure, available man-power skill and air-port infrastructure. The revenue projection for 2009-2010 is 20,000 crore rupees.

3.4.3 Unit III
The aspirations of IT Policy are pointed here with 6 'E' models i.e. Education, Employment, Entrepreneurship, Electronic Governance, Economy and Equality. The need is expressed to introduce IT in all levels of educational institutions, encourage IT enabled services for employment and encourage IT industries. In context to E-governance IT is to be used to provide SMART governance and empower women, tribal people in remote areas of the State and weaker sections. IT should be used to provide 'world class' tourism in the State. However it is recommended that the IT infrastructure in the State need to be improved, IT usage to be localised in Hindi and foreign earning in IT need to be generated.

3.4.4 Unit IV
The policy decisions taken by the HP government towards realising IT Policy of the State are discussed comprehensively in this unit. The decisions, in short, are as follows:
(i) Setting-up of IT Industry

- DoIT would act as single window clearance for setting up of any IT industry including hardware, software, IT related educational institutions and IT enabled services. All industrial promotional concessions would be available to IT industry.

- Sale tax on IT products including hardware, software and services would not be high and the State government would lobby to have zero sale tax for IT industry in future.

- Land for IT industry would be given on priority basis, IT units can run from residential areas and no land or building tax would be levied on IT units.

- State financial institution shall treat software and IT services as priority area for (giving loans). The State government would create a venture capital fund of 20 crore rupees to meet out equity requirements of small and medium IT enterprises.

- IT units would be exempted to the extent possible by the inspections by various departments and these units can employ labours in three shifts.

- The State government would encourage setting up of IT educational institutions by providing land at market rates and 5 per cent of the seats would be filled on recommendation of the State government.

(ii) Creation of State-of-the-Art IT Infrastructure

- Negotiation would be done with STPI to set-up STP in Shimla.

- Hi-tech IT habitats would be built around major towns in the State. In some areas in the State knowledge corridors would be set-up having high density Internet connectivity.

- The private sector would encourage private sector for laying high bandwidth infrastructure in the State.

- Private ISP would be encouraged and cable networks would be allowed to provide Internet with consideration from State Electricity Board to use their transmission line structure.

- International convention centre would be opened up to hold International conferences, exhibitions and seminars.

(iii) E-governance

- Each government Department of Himachal Pradesh shall prepare a Five Year IT Plan by March 2001. This plan shall address the extent of computerisation
of its core activities, with special reference to its Citizen Interface, need for hardware and software resources, manpower requirement and training of employees.

- Proposal of NIC for E-governance (section) would be implemented, Secretariat would be on optical fibre connectivity, under secretary and above officials would be provided Internet and video-conferencing facility would be between district departments and CM and chief secretary’s offices. A project called Tele-CM would be launched to have mobile video-conferencing with the CM.

- Existing training centres to provide appropriate training, knowledge of word-processing would be compulsory for steno-typists after 2001 and passing of computer courses would be compulsory for some selected cadre and an entry in Annual Confidential Report would be made for promotional purposes of these employees.

- A committee under the secretary DoIT would be formed to encourage Hindi usage on computers, information kiosks would be set up at District level and data warehouses having local contents would be created at these kiosks.

- The citizen interface with the government would be improved by interacting with citizens electronically. The citizens would be able to do land deeds, access land records, lodge FIR, get certificates and licences, pay utility bills, pay excise taxes, register for employment etc. electronically.

- All revenue earning and high level of contacts with the citizens departments would be computerised. All departments would be encouraged to set-up Websites.

- Information kiosks would be set-up on the analogy of telephone booths in the State.

- In the long run the citizens would be given Citizen-ID and a multi-purpose card for various services. For this necessary amendments in rules would be done.

- The government would encourage e-commerce in its own functioning and in private sector. All procurement, tendering would also be done electronically from 2002 onwards. E-tourism would be promoted through Internet.
• A comprehensive Tele-medicine network would be launched in the State and completed by 2003 to provide connectivity all the hospital and dispensaries in the State.

3.5 Department of IT

As a follow up of the National Task Force of 1998 a department of IT is created in the State on November 18, 1999. The department is headed by a Principal Secretary and under him comes an Additional Secretary of IT. After State IT policy of 1999 which was further refined to IT Policy-2001, the DoIT has three wings – namely Industrial development wing to set-up IT industries in the State, high speed communication facilities, software technology parks and IT habitats; Human Resource Development wing to set-up IT related educational institutions and formulating the syllabuses of such institutions; and E-governance wing for setting up of State Wide Area Network, designing, development, implementation of computerised systems, Web-enabled interfaces for E-governance, providing government -Citizen interface and delivery mechanisms and complete computerisation in selected departments. The first two wings are owned by State and the third wing is State NIC unit.

Since the formation of DoIT until 2001, the department was being run without the support of any directorate, staff and infrastructure. By the State Cabinet Committee on January 28, 2002, DoIT was merged with Department of Industries and named as Department of Industries and Information Technology. It was decided to run DoIT through the directorate and staff of Department of Industries. However in the month of February, 2004 there was a proposal to the Cabinet to separate DoIT from Industry department and to name new department as Department of Information Technology and Communication. This was done because “the existing arrangement of having Information Technology Department as a part of Industries Department could not yield the desired result because of pre-occupation of the Industries Department with its own policy implementation and monitoring and control of various corporations.”

The proposed department was supposed to have its own independent directorate and the department would function on single file system (not circular movement of files from lower staff to head and then back again). A scheme for appointing staff was also submitted. The separate department would have in addition to Principal Secretary and Additional Secretary a Director from IAS officer, an additional Director either senior officer having

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55 Personal communications with an official.
penschant for IT or an HAS officer, three Joint Directors/Deputy Directors having technical degrees and experience, three Systems Analysts, six Programmers and fifteen Secretarial Assistances including six operators. According to this new scheme the administrative department of HPSEDC would be the IT Department. However HPSEDC will continue to be a separate entity doing its commercial business of hardware/software procurement, data entry, turn-key projects etc. In the month of March, 2004, the DoIT was separated from Department of Industry. However it was put under the Secretary of IT, BT and Science & Technology. The department appointed one director from IAS cadre (additional charge), one Manager and three programmers. In fact there were advertisement for all technical staff on deputation basis but either the sufficient number of candidates did not apply or there were not suitable candidates, as was told by one concerned employee of the Secretariat.

3.6 E-governance Strategy and Guidelines

The NIC is the E-governance wing of the DoIT. It has come up with an E-governance Strategy and Guidelines document for the State, firstly to improve and simplify working of the government for internal monitoring, controlling and decision making; and secondly to ensure the highest standard of services to the citizens by providing instant access to selected government information, and interaction interface, wherever and whenever they need it.

3.6.1 E-governance Strategy

The E-governance strategy underlines the importance that moving towards E-governance in the State would require basic changes in work culture, goal orientation and changes in existing processes. Some of the important points the strategy lays are as follows:

(i) To create a culture of maintaining, processing and retrieving the stored information through computer for decision making. This would be done by moving in small steps without disturbing the existing manual processes. There would be resistance for moving to E-governance. This inertia by the employees for change cannot be overcome by the lower and middle staff and it is critical to generate equivalent top level force to overcome this resistance.

(ii) There is need for minimal IT infrastructure within the State including a State-wide Intranet and LAN at each departmental level. This is required for smooth flow of data from all the departments for up-dating State government Portals.

(iii) There is need for comprehensive integrated approach for information systems development from all the departments. The database created is to be integrated in data warehouse to support decision making using data mining.

(iv) Appropriate training is necessary for the government employees for changing mind sets and bringing IT culture.

(v) “The government of Himachal Pradesh has now decided to undertake the programme of Computerisation in a very Comprehensive manner, with a view to achieve complete E-governance in its full sense, commensurate with its recently announced IT Policy-2001.” To speed up the diffusion of the IT for E-governance, there is a need on the part of the State government to go for public-private-partnership (PPP). The reason to go for PPP is that the State government does not have technical manpower and the computer literacy level is ‘awfully’ inadequate.

(vi) For Going to PPP, “the government of Himachal Pradesh has decided” to make a panel of Turnkey Solution Providers (TSPs) from the Infotech companies which would be assigned the tasks of E-governance. These TSPs would work under E-governance wing of DoIT.

(vii) When the individual departments get computerised, E-governance wing of DoIT would take macro view of the computerisation in the State as a ‘Pole Star’.

(viii) A State-wide Intranet is proposed with LANs at Secretariat and at each district headquarters. The Secretariat would have SCPC VSAT which could be tuned to 64-384Kbps and districts headquarters would have SCPC VSAT of 64Kbps. There would be facility at districts for video-conferencing and bandwidth could be raised to 384 Kbps for that purpose.

### 3.6.2 E-governance Guidelines

During the process of using IT for E-governance, the departments have to follow certain guidelines. Some of these guidelines are as follows:

(i) Each department would appoint a nodal officer not below the rank of Deputy Director as a nodal officer for E-governance. This officer would first bring an approach paper of problem definition. The E-governance wing would take up pre-feasibility study to identify the requirements specifications of the application software. The department
nodal officer would be free to choose any TSP for further software development and implementation. The nodal officer should co-ordinate with TSP for all activities.

(ii) After all the hardware and software specifications are frozen, only then quotation for hardware would be invited.

(iii) The application specific training to the employees should be given by the TSP, whereas general training is also required for all the government employees. For Class-I officers, the training would be of knowledge of system design and use of computers for decision making, for class-II officers the training would be towards data organisation and systematisation of procedures to enable computerisation and for Class-III employees the knowledge of word processing and office automation tools should be given.

(iv) Each department should think of having software viz. Standard office automation software, customised office automation software, departmental information systems software designed by TSP, citizen services automation systems and Web-enabled systems to integrate with government Web portal. The departmental Website/Webpage should have authentic information, citizen friendly interface, up-to-date information and the Website should be accountable towards attending visitors’ communications.

(v) The E-governance wing (i.e. NIC) has identified specifications for detailed project proposal on developing software systems within a department. For this a detailed approach-paper has been designed. The Software Requirement Specifications (SRS) would be IEEE Std. 830. The SRS would be frozen completely before further software development and there would be no changes to SRS hereafter. The freezing of SRS is done deliberately to avoid costs and time-over-runs in incorporating changes during development/implementation stages. The Software Design Description (SDD) would follow IEEE Std. 1016.

3.7 E-governance Applications

The NIC and various government departments/agencies in the State have developed various computerised applications. These applications can be divided broadly into two categories i.e. E-administration and E-services. The reporting on these E-governance applications is done briefly here to get a perspective on the nature of these applications. The detailed report is available in the NIC State unit document.

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3.7.1 E-administration

The NIC has developed a number of software applications for improving the internal functioning of the administration. Mostly these applications have been developed in Fox-base under UNIX environment and run on text-terminals. The NIC is in the process of converting these software applications into user-friendly environment using GUI to keep-up with the changing/changed technological innovations. The applications have been implemented in the concerned department on NIC supplied terminals or on the personal computers the departments have purchased. For the departments which have no computers, the applications are implemented on NIC computers and whenever there is need to use these applications, the users from the concerned department visits the NIC State unit. The applications can be categorised as for Secretariat level departments (Table 3.1), other departments having location in the Capital but are independent of Secretariat (Table 3.2), institutional level (Table 3.3) and district level (Table 3.4).

Within the Secretariat the most visible application is Chief Minister's References Monitoring System (CMRMNIC) implemented in CM office branches. The CMRMNIC records all the communications received by the CM office, monitor follow-up actions on the references, answer queries on various references and generate various orders issued by the CM office on the references. The sources of communications have been categorised as Ministers, MLAs, other VIPs and general public for subjects like transfer, development and grievances etc. The work flow of the CMRMNIC is like this: any letter coming to the CM is first given a diary number by the concerned branch through computer. The letter is sent to the CM for comments and after that the comments of the CM made on the letter are recorded in the computer. The letter is sent to the concerned department for compliance. The CM branch is divided into 4 sections and each section handles matters of different government departments assigned to these sections. According to an employee of the Secretariat the 'grievance/letter made to the CM usually go to the CM directly from the diary branch and then come to the CM branch for entry. After receiving the letter, the concerned section puts reference number on the letter and enters the comments made by the CM on the letter. Then the letter goes to the concerned department for compliance. The real problem lies in the branch of the department because there is no ways to find out weather the compliance has been taken or not by the department. A common man who had made complaint from far off place cannot find out the status of his complaint or letter from his home" (sic).
<table>
<thead>
<tr>
<th>Name of Application</th>
<th>Features</th>
<th>Implementation Status</th>
<th>Future strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM's references monitoring system</td>
<td>-Recording all the communications received in the C.M. Office</td>
<td>Implemented since April, 1998 under Unix environment. 18 GIST terminals provided for data entry in CM office branches and 6 GIST terminals for officers for query</td>
<td>The software is being redesigned and developed in the window based environment by using visual basic at the front end and SQL server at the back end.</td>
</tr>
<tr>
<td>Cabinet decision MIS</td>
<td>-Preparing agenda for cabinet meeting</td>
<td>Implemented since 1998 on a PC in the CM branch</td>
<td>The software is being redesigned and developed in the window based environment by using visual basic at the front end and SQL server at the back end.</td>
</tr>
<tr>
<td>LAN based reference monitoring system in the Secretariat</td>
<td>-Easy Reference of letters/ files</td>
<td>Implemented in central diary in the Secretariat, and Health branch on GIST terminals</td>
<td>Stage-wise implementation in all branches of the Secretariat</td>
</tr>
<tr>
<td>government decision database</td>
<td>-Keeping records of all decisions</td>
<td>Implemented and maintained by ARU section and can be accesses on Secretariat LAN</td>
<td>-</td>
</tr>
<tr>
<td>20-Point programme MIS</td>
<td>-Monitoring Progress under various schemes</td>
<td>Implemented in 1998 for 14 items in 20-Point programme section. Initial targets yearly-wise are set and monthly achievements are entered.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-Generating Monthly statement of Progressive Achievements i.e. data entry and processing at the State level</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Transmission of monthly &amp; progressive achievements to GOI over the NICNET.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1  Secretariat Level Computerised Applications (Contd...)

91
| Monitoring departmental cases in various courts | This is generalised software where concerned department is able to know about the case by its no., type, subject and court of date of filing/ expiry of time limit, stage of the case, parties to the case etc. | Implemented and tested in PWD department in the Secretariat. |   |
| Arrears monitoring system | -Handling weekly and monthly arrears -Monitoring disposal of letters/ files in all sections, the receipt of disposal returns from sections, individual wise disposal of letters/ files in the section, Reminders to the sections for non-receipt of returns etc | Implemented in Administrative reforms Unit of the Secretariat which handles arrears of the entire Secretariat. |   |
| Library MIS | Searching of books, issue and receipt of books and stock inventory of Secretariat library | Implemented in Secretariat library | Providing modern look by putting it on-line using Web |
| Vehicle expenditure monitoring system | Keeping track of issuing of money to drivers, entering bills of expenditure, monitoring balance and tracking information of expenditure of day-to-day running and maintenance of vehicles | Implemented in GAD-A branch |   |
| Personal account MIS | Generation of pay-slips of higher officials, keeping account of their leaves, timely pay-fixation, speed up pension cases etc. | Implemented at personal account sections of IAS/IPS/IFS |   |
| House allotment MIS | Pool wise allotment of houses, list of vacant houses, recovery of dues etc. | Implemented in estate office |   |
| Recruitment & promotion rules MIS | A database of department wise recruitment and promotion rules. | Implemented in HP Administrative Services, Treasury and Account and Technical education sections | All departments to be covered for enforcing uniformity in recruitment and promotion. |
| Personal MIS of civil officers | Information about the areas employed served, transfer records and any other personal record. | Implemented for IAS/HPAS and heads of departments officer | Being extended to Secretariat cadre employees |
| Telephone billing monitoring systems | Bifurcating official and private calls, record of unallotted numbers and recovery of private calls amounts, monitor calls booked by PBX numbers | Implemented and running smoothly in SAD branch |   |

**Table 3.1 (Concl.)**

**Sources:** Tables 3.1 to 3.5 have been compiled from 'Report on E-governance initiatives in the State of Himachal Pradesh, Nov. 2003' and other documents from NIC Shimla
<table>
<thead>
<tr>
<th>Department</th>
<th>Application/s</th>
<th>Features</th>
<th>Implementation status</th>
<th>Future Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperatives</td>
<td>Cooperative statistics MIS</td>
<td>Creation of lists of all the societies in the State, speedy capture, compilation, publication and sending of data to NABARD</td>
<td>Implemented in foxbase in UNIX in 1998. At NIC unit in Shimla 1997-1998 and 1998-1999 reports were generated at central level. From 1999 onwards decentralised to districts.</td>
<td>Website under progress, after that data will be put on Website</td>
</tr>
<tr>
<td>Economics &amp; Statistics</td>
<td>State domestic product MIS</td>
<td>Capture data on various parameters from districts and prepare all the estimates automatically on computer.</td>
<td>The software is implemented in the Directorate of Economics &amp; Statistics. The software eliminates enormous manual efforts involved in the calculations work in the process, which is highly prone to errors, and generates results faster and accurately.</td>
<td></td>
</tr>
<tr>
<td>Excise &amp; Taxation</td>
<td>-filing &amp; monitoring of returns</td>
<td>Filing of returns on Web and tax collection at State barriers</td>
<td>Return software under implementation &amp; Tax-Barrier implemented in Visual Basic, Access &amp; windows at 9 tax barriers</td>
<td>On-line filing to be made mandatory and Software to be extended by more features.</td>
</tr>
<tr>
<td>Industry</td>
<td>Tendering process</td>
<td>Generation of tenders for selected items, compilation of comparative statements, issuance of acceptance letters, rate contract notification and maintain database of tenderers and item rates.</td>
<td>Implemented since 1997 in Directorate of Industry on personal computer. The package helped in time saving on repetitive processes.</td>
<td>-</td>
</tr>
<tr>
<td>Education</td>
<td>Institution MIS for secondary education</td>
<td>School-wise statistical information collection and consolidation, sending information to GOI</td>
<td>Implemented since 1992 in all the districts. The software converted to oracle and implemented in four districts.</td>
<td>Software to be converted to Windows platform</td>
</tr>
<tr>
<td>Transport</td>
<td>National Permit Scheme &amp; composite fee MIS</td>
<td>Issuance/renewal of national permits, keeping account of defaulters and drafts received</td>
<td>Department was without computer so implemented at NIC unit</td>
<td>-</td>
</tr>
<tr>
<td>Generalised Payroll Software for all departments</td>
<td>Payroll Processing System</td>
<td>All aspects of pay generations and deductions</td>
<td>The software independent and implemented throughout the State starting from Secretariat to block level offices. About 30% of the employees are covered under this software application. This is the most-widely used software in the State since 1992</td>
<td>-</td>
</tr>
<tr>
<td>Generalised Personnel Software</td>
<td>Personnel MIS</td>
<td>Keep employees information about manpower in different departments including stay at one place, transfer status etc.</td>
<td>Implemented for PWD employees, Food &amp; Civil Supplies Employees &amp; officers</td>
<td>To be made Web-enabled &amp; implemented for all employees in the State as a huge database</td>
</tr>
</tbody>
</table>

**Table 3.2** Departmental Level Computerised Applications
<table>
<thead>
<tr>
<th>Name of Institution/Organisation</th>
<th>Application/s</th>
<th>Features</th>
<th>Implementation Status</th>
<th>Future Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP Vidhan Sabha</td>
<td>NIC has set-up a computer centre &amp; posted a technical officer in the HP Vidhan Sabha. Some of the software applications developed from E-governance point of view as : -Discretionary grants monitoring system -Loan monitoring system of MLA's /Ex-MLA's -Bills monitoring system -Telephone billing</td>
<td>Main features corresponding to the applications are : -To keep account of the disbursement and utilisation of discretionary grants by the Speaker/Deputy speaker of the Assembly -To monitor the recovery of MLA's loans by keeping track of payment made, list of defaulters and due date of payment etc. -Information about bills of expenditures of MLAs and budget forecast -Keep account of bills of telephones</td>
<td>The applications are on foxbase-Unix environment &amp; and windows environment as well. These applications are fully implemented but not being used completely.</td>
<td>To prepare database of bills passed by Vidhan Sabha and make it available on Website for general public, issuing and monitoring of passes to general public during Assembly sessions etc.</td>
</tr>
<tr>
<td>HP High Court</td>
<td>NIC has set-up a computer centre in the HP High Court for Computerisation &amp; posted a technical officer. Some of the software applications developed are: -List of Business Information Systems; LOBIS-Filing information systems -Disposal information system -Subordinate courts disposal information system - Other applications (MIS) for internal functioning of the High court</td>
<td>Main features corresponding to the applications are: -generation of daily, monthly and supplementary cause list of cases and generate the list of pending cases -Entry of fresh with all information like lower court judgment, fees etc. The cases connected to LOBIS database -Disposal report of cases in each case &amp; query on various fields. -Statistical reports of pending cases in lower courts. -Other applications for payroll, personal information about judges, judgments of the court etc.</td>
<td>The applications are mostly in foxbase -Unix environment. The applications are running and cause list is put on Internet through NIC Website.</td>
<td>MIS for the court. Public interface will be developed to have E-mail between litigantscourts and registry, put display boards about next case, Electronic filing of cases and E-kiosks for public and single window facilitation centre for the public/advocates.</td>
</tr>
<tr>
<td>Himachal Institute of Public Administration</td>
<td>NIC has set a state-of-the-art computer centre for training officers of HP in HIPA. The computer centre has client/server LAN with Pentium I/II/III/IV based Client/ Server- Local Area Network (LAN) with 7 servers, more than 70 Clients, laptops with sufficient no. of multimedia projectors, modern teaching aids and various software. There is 128Kbps Internet connectivity.</td>
<td>-To impart training to the officers of the HP government -To conduct and assist in organization conferences, seminars and workshops in various fields.</td>
<td>NIC conducts around 100 training courses to the officer. HIPA centre has given computer training to around 11000 officers.</td>
<td>-</td>
</tr>
</tbody>
</table>

**Table 3.3 Institutional Level Computerised Applications**
<table>
<thead>
<tr>
<th>Department Name</th>
<th>Application</th>
<th>Features</th>
<th>Implementation Status</th>
<th>Future Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare</td>
<td>Welfare Pension MIS</td>
<td>Disbursement of pension, entry &amp; deletion of pensioners</td>
<td>Implemented in all districts and pensions of around 1, 60,000 pensioners are generated.</td>
<td>List of quarterly payment of pensions to be put on Internet</td>
</tr>
<tr>
<td>Rural Development</td>
<td>RuralSoft -2K</td>
<td>Monitoring of rural development schemes and sending data on implementation status to GOI</td>
<td>Implemented in DRDA in all the districts. The software is user friendly GUI based.</td>
<td>-</td>
</tr>
<tr>
<td>Central Diary &amp; Dispatch</td>
<td>References Monitoring MIS</td>
<td>Monitors receipt/dispatch of various letters</td>
<td>Implemented in all districts in Foxbase-Unix environment</td>
<td>-</td>
</tr>
<tr>
<td>DC Office</td>
<td>Schemes MIS</td>
<td>Physical and financial monitoring of various schemes initiated by DC after proposal from ministers/MLAs</td>
<td>Implemented in Shimla and partially in other districts under Foxbase-Unix environment</td>
<td>-</td>
</tr>
<tr>
<td>Treasury</td>
<td>Treasury MIS</td>
<td>Prepare all accounts of payment and receipt at district level</td>
<td>Implemented in Foxbase -Unix environment in all the districts</td>
<td>Will be converted to user friendly interface</td>
</tr>
<tr>
<td>District Court</td>
<td>District court IS</td>
<td>-Filing of cases, -Generating daily cause list, -Generating orders</td>
<td>Partially implemented in district courts on Foxbase-Unix environment</td>
<td>To be connected to High courts for MIS purposes</td>
</tr>
</tbody>
</table>

Table 3.4  (above) District Level Computerised Applications

| Revenue | Himbhoomi | Computerisation of land records & issuance of copy of land record to the owner | Implemented at one tehsil in Shimla district. Land records entries going on in all districts | Data to be put on Web so that everyone can see land records. Also data to be linked for planning purposes |
| Revenue  | HIMRIS    | Computerise all land deeds viz. sale, purchase, mortgage etc. & stamp duty/and fees already in computers. | Software under implementation in Kangra District | It will be implemented in all districts |
| District Headquarters | E-governance Centre | -Driving, arms, vehicle licenses -Passport processing -Sale purchase of vehicles -Cash counter -Touch screen facility for information | Implemented in Hamirpur, Kangra, Una & Mandi districts. Single window clearance system using user friendly software | To be implemented in all districts |
| District wide | LokMitra   | - Provide SMART governance at people’s doorsteps by public telecentres | Implemented in District Hamirpur with 25 kiosks since May, 2003 using district-wide Web-enabled Intranet | To be implemented in all districts |

Table 3.5  E-services Initiatives in the HP State
At the departmental level the payroll computerised software application is the most used application. This software is used in almost all the departments starting from Secretariat level to the block level wherever there are computers. The software usage covers the 30% of the employees in the State. Another ambitious application is Personnel Management Information system for the employees. According to NIC, the application has provisions for database regarding complete personal information of the employees and the flexibility of the application design ascertains the departmental specific customisation of the information. In future the information about the employees is supposed to put on Internet for transparency.

For the institutions, the NIC has set-up computer centres and provided manpower. The computerised software applications have also been developed for these institutions by the NIC. For H P High Court the computer centre has been set-up to speed-up information flow and even cause lists are linked to Website for general public where the general public can see the listing of cases and the name of court/bench in which the case will be taken. In the HP Vidhan Sabha, the applications are developed for keeping account of grants, loans by MLAs, budget and other internal management activities, though only partial use of these applications is being done. At Himachal Institute of Public Administration a ‘Hi-tech’ computer centre has been set-up with the help of Centre government and the State government. The NIC provides around 100 courses each year for training officers in fundamentals of computers and E-governance. The NIC also run courses for the officers on the request of the department and for these courses the NIC charge money from the department. The NIC has also made software applications for H P Administrative Tribunal, H P Commission for Backward Classes and State Consumer Commission.

At District level various software applications have been implemented within administrative branches at District headquarters (Table 3.4). These applications are discussed in Chapter 6 in context to district Hamirpur.

3.7.2 E-services

The State government in collaboration with the Centre government and NIC has started some E-services to the citizens (Table 3.5) so that citizens don’t have to visit the offices rather they can avail the services on Internet or at kiosks and also to curb corruption. The various forms have been put on Himachal Portal.

The land records computerisation began in HP in the year of 1989-1990. It was started in district Kangra with the cost of Rs. 25 lakhs. The objectives of the
computerisation were to provide citizens Records-of-Rights quickly at a reasonable price and create a complete land information system and database to carry out land reforms, revenue administration and development planning. Data entry of 1604 villages was made upto the year 1994 in five tehsils of District Kangra. However the software did not meet the objectives and it was discontinued. However in 1999, the NIC developed another Land Record Computerisation Software called Himbhoomi and implemented in district Shimla and test checked in March, 1999. Himbhoomi is 100 per cent Central government supported scheme. In November 2003, the Himbhoomi software was implemented in Sunni tehsil of Shimla. The Himbhoomi system is “exact replica of existing manual system with improvements and [is] compatible to requirements thereby enabling its replication without any resistance from revenue staff”. The software has provision to enforce authorised access to the data by bio-metrics means, though the present pilot implementation uses only password protection. The software has two modules; one for master data entry about the records of rights at NIC district unit and second module to port this data onto the machines in the field. The master entry software is developed in Oracle7.0 DBMS as backend & Visual Basic as front end. At tehsil level the data is handled by SQL server DBMS and Visual basic. The hardware implementation of Himbhoomi is on Ethernet LAN of two PCs, one server, one laser printer on LAN and one dot-matrix printer. The software has provision for all the jobs earlier done by the patwaries manually. The total cost of the equipments was about 4 lakh rupees. The land records are stored on server hard-disk. Two patwaries have been trained to handle the PCs and give printed land records copies to the citizens on payment of Rs.10. The back-up copies of data have been kept at district headquarter in Shimla on CDs. The Himbhoomi software is being extended to other tehsils of the State in phased manner. In the State there are about 2200 patwaries who deal with land records manually and there are about 15, 00,000 land records holders in the State. In the first phase 64 tehsils would be provided with Himbhoomi by the end of the 2004, according to Directorate of Land Records. So far the data entry of 4324 revenue villages has been done (till April, 2004). The department of Land Records has started training revenue officials form October, 2003 at each district level and so far 1101 personnel have been trained. Also the necessary hardware for 37 tehsils has been procured in April, 2004.

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58 Publicity pamphlet: Himbhoomi- A Smart Way to Computerize Land Records, Department of Revenue HP & NIC HP; and also publicity CD prepared by DoIT and documents of Department of Land Records.
Another citizen-centric system for registration of land deeds called HIMRIS (Himachal Registration Information System) is also ready to be implemented in the State. The HIMRIS has provisions to calculate the fees of registration of sale/purchase of land and capture photos of seller and purchaser so as to check corruption in fees collection and to check forgery by impersonation respectively. The application would be implemented in phased manner district-wise. In future to provide transparency the rates of lands in a particular location would be put on Internet to provide transparency.

Two more E-services have been implemented in the State. A telecentres based ‘Government-Citizen- Interface’ called LokMitra has been initiated in district Hamirpur and E-governance centres have been opened in four districts headquarters (The cases of these E-services are discussed in chapter 5 and chapter 6 respectively).

3.8 State Website

The NIC has developed Web portal for Himachal Pradesh which could be accessed from URL http://himachal.nic.in. According to the Website it is an initiative towards extending various services to the common man through the Internet so that the citizens can avail most commonly required information without physical visits to the offices. The Web-portal has hyper-links to the Webpages of various departments, corporation, boards, institutes etc. existing within the geographical limits of the State. There are three kinds of hyper-links. The Webpages which are not on NIC server are given the links free of cost (e.g. http://www.educationhp.org of Education department). The other two types of Webpages are those Webpages which are stored on NIC server. These two types of Webpages on the NIC server are the Webpages which are hosted free of cost and those which are charged for hosting by the NIC. If the department has limited information then NIC post it as a file of its own Webpage (e.g. http://himachal.nic.in/elec/ Webpage of Election department). But if the department wants its own independent Website then NIC charge the department for that (e.g. http://hppolice.nic.in/ Webpage of Police).

Besides having links to the various Websites and general information about Himachal Pradesh, the portal is envisaged to provide various citizen centric services as a first-stop. The portal has E-mail facility to write to the CM and reply is supposed to come within seven days. Some of the other citizen centric services are viz. information about and telephone directory of ministers and officers; weather forecast, directory of guest houses and tracking routes for tourism purposes; down-loading forms; vacancies; electoral rolls of HP; discussion forums etc.
The four districts of the State have also made own Webpages and district specific information has been put on these sites. For example the Website of Lahaul-Spiti district (http://hplahaulspiti.nic.in) Website provides information about its history, monasteries, access route, trekking routes and accommodation availability as the district is suited for religious and adventure tourism. The districts Websites also provide E-mail facility for the citizens to contact directly the DC for grievance redressal.

The only commercial Internet based Web service which is being run in the State is from Himachal Pradesh Tourism Development Corporation (HPTDC) for online hotel reservations (http://hptdc.nic.in). The Website provides information about the availability of accommodation in different hotels of HPTDC and there is provision for on-line reservation. The payment is realised either through UTI Bank branches in India or by sending any money instrument within 15 days after the reservation is made.

3.9 Observations on Current Scenario

The following observations are about the status of E-governance initiatives at State level. The observations are divided into two sub-sections. The first sub-section lists the status of NIC, State government department vis-à-vis computerisation activities and the second sub-section discusses the status of HP Website.

3.9.1 Computerisation Status

- The NIC is the main technical wing for E-governance/computerisations for Secretariat and district administration (though the computerisation efforts in some Boards and Corporations have been initiated by these organisations independently). The NIC State unit has purchased a separate building which is located away from the Secretariat. However due to the dependence of Secretariat on NIC for technical support, the NIC is still housed in the Secretariat building. According to an NIC personnel, “NIC has just wasted money in purchasing the new building. If NIC unit is shifted to that building, whatever computerisation is in operations would come to a standstill.”

- The NIC mainly works on Centre government sponsored programmes. The computerised applications developed by NIC Central unit and which are already in use in other parts of the country are fine tuned by the State unit for HP needs. Due to the less number of NIC personnel, NIC State unit finds itself overloaded because NIC has to liaison with Central unit at one end and with the State government at the other end. Besides, the NIC is in the process to convert all its
old character based Fox-base-Unix environment software into GUI based Windows environment to keep-up with the technological changes and NIC State unit also has to design courses and impart training to government officers in HIPA. NIC personnel also lament of non-cooperation by State government for day to day operational needs like computer operators, messenger etc. of the NIC unit. There are some incidences when there were differences of opinions between NIC personnel and Secretaries which lead to ‘sore relations’ for team building between NIC technical personnel and government officials. According to personnel, “The bureaucrats dislike if their views are contested and they want to impose their opinions by all means” (sic).

- Though NIC has SCPC DAMA and SCPC PAMA VSAT based connectivity but NIC is mostly using the leased line for connectivity.
- Since the NIC has set-up video-conferencing facilities at Secretariat and at two districts, but no incidence of its practical usage was found except for test-runs.
- The hardware which was installed by the NIC since its inception is still in use. The character based GIST terminals have long ‘hang times’ and the hardware companies have stopped providing maintenance support for these terminals and other old equipments. At some offices in the Secretariat, these terminals could be seen housed on attic! The thicknet Ethernet installed by the NIC at Secretariat and DC offices are the only LAN cablings existing at present. This infrastructure has become slow because of the GUI based applications being run on these cabling and finding ‘spares for the old LANs’ is difficult and costly as well.
- The NIC submitted a proposal to the State government in May 2000 to upgrade the existing hardware platforms and network components on cost sharing basis. According to this proposal a State-wide network called HPSWAN (Himachal Pradesh State Wide Area Network) was to be set-up with a total costs of 7.10 crore rupees with the NIC share of 2.78 crore rupees and the balance 4.32 crore rupees to be funded by the State government. The share of the State government was funded by the NABARD. However the execution of the project could not be started and only NIC utilised 2.29 crore rupees of its share by August, 2003. The NIC by its share provided video-conferencing facilities at HP Secretariat, DC offices at Mandi & Dharamshala (Headquarters of Kangra); upgraded server and LAN components and provided dial-up connectivity to HoDs and District level officers for E-mail/Internet use through NICNET. On the request of State
government made in April, 2003 for the revised proposal, the NIC has worked out a proposal worth 13.10 crore rupees and submitted to planning department of the HP to set up the State-wide network renamed as HIMSWAN (Himachal State Wide Area Network). The new proposal takes into account the requirements of the latest hardware equipments (e.g. servers, PCs, laser printers, CD-writers, scanners, UPSs) for end-users; hardware/software and NICNET connectivity to citizen centric applications (LokMitra); network component up-gradation; and providing video-conferencing at remaining 10 districts headquarters and four tribal sub-divisions at Kaza, Pangi, Bharmour and Pooh.

- The Department of IT has signed a contract with a private company to install hardware equipments and set-up LANs in Secretariat and District headquarters of worth 3 crore rupees (about) as an initiatives towards HIMSWAN in April, 2004. According to an official the Department has asked for 20 crore rupees but they were given only 3 crore rupees by the government. It was also found that out of this amount around 1.5 crore rupees belong towards land records computerisation and land records department has acquired its hardware and is in the process to install it at identified districts and tehsils. There is also proposal going on within DoIT to set-up computer centres in every district independent of NIC. For the E-governance software applications development, the DoIT is in the process of planning for out-sourcing. The DOEACC Shimla unit has also been approached for the purpose.

- The Secretary of DoIT has Electronics Engineering as basic degree from an IIT and is taking a lot of interest himself in installation of the Secretariat LAN (Annexure IV). This is evident from the fact that the Secretary is personally supervising the installation. According to a non-gazetted official, “Our Secretary is working very hard and taking a lot of zeal, which was missing in his predecessors, to make the computerisation a success. He doesn’t hesitate to work manually on the installation and this is a motivation for his junior staff. The only drawback is that the secretary works till late night and that seems a torture to the junior staff which has to remain with the secretary” (sic.).

- The Secretariat wide LAN uses gigabit fiber-optic and copper cabling in star topology. Once the LAN is set-up, the DoIT will implement file reference system computerised application (rather re-implement as it was also started long back but failed). This application is called REFNIC. The REFNIC would be used to track
the status of files within the Secretariat on-line and movement of file would be through E-mail. Every-file would have unique access number. Even the complaints/grievances/letters coming to central diary branch of the Secretariat would be attached a unique identification number and their movement and status could be traced. According to an employee earlier the letters from public used to come directly to the branches and it was at the discretion of the employees to answer the letters. Some times the employees used to throwaway the letters. But with the implementation of the REFNIC, there would be accountability of each employee to work on the letter marked to him from the central diary branch. The secretary has provided the information personally to the Secretariat employees about the new development happening in the Secretariat on computerisation and REFNIC by holding a workshop of NGO employees. According to the employees they would be getting one computer for a group of three employees. During interviewing a secretary in the Secretariat, the secretary mistook a LAN cabling conduit in his chamber for a new electric connection.

- No incidence was found where any department has followed guidelines provided for E-governance by the E-governance wing. However there are incidences when ministers make public statements that such and such department would be computerised within 3 or 6 months. In reality nothing happens within that time. According to a technical person “in reality some hardware equipments are bought and the purchase of hardware is considered as computerisation. The software applications to be run on these hardware equipments are then planned later. Sometimes these equipments remain under-utilised.” According to a senior bureaucrat who commented upon the slow speed on the part government in implementing of E-governance, “E-governance is a good concept to bring efficiency and services to the people. But tell me who really wants to serve the people rather they [people in power] want to operate the things in darkness. If people get aware and all the developmental priorities are fixed before hand, then who will ask them [people in power] for inaugurations or favours” (sic). Said another official, “In my departments we are purchasing the computers and going for using them in administration. At the field level, computerisation cannot check the corruption unless the people are enlightened themselves.”

- Regular training of government gazetted and non-gazetted officials are being held. The non-gazetted employees of the Secretariat earlier use to get some allowance as Secretariat allowance. It has been made policy by the government
that only those employees, who completed computer awareness course by June, 2004 would be eligible for the allowance. The DOEACC Shimla unit is providing training to these employees within Secretariat premises since May, 2002. By May, 2004 around 400 employees has been trained in handling computers and using MS-office tools. According to a trainer, during the beginning of the training some officials just wanted certificates and showed little interest. To tackle this problem, the system of tests and grading of the performance after the training has been introduced.

- The Centre government has engaged three different private consultancy firms to oversee the implementation of land records, land deeds and transport department computerised applications. These firms would provide consultancy on resource requirements of these applications and prepare guidelines for change management.

- The Himbhoomi software is implemented in two DBMS's. The reason for using two DBMS's was stated by a technical personnel: “Earlier the Himbhoomi master software was developed in Oracle7.0 but by the time the government took the decision about the functions to be provided by the operational module, the Oracle7.0 technology became obsolete and the Oracle company stopped support for Oracle 7.0 version. Since the operational module was developed later, we had to choose SQL server to develop it. Therefore we had to develop a porting module for porting data from Oracle7.0 to SQL server. We have to put extra efforts to develop the porting module but still it was a better option than starting development of master module in SQL server from the scratch.” The Himbhoomi project implemented in tehsil Sunni is running successfully since November 2003 except a down-time of three days due to hardware failure. According to an employee posted there, “about 5000-6000 rupees are generated per month. The mutation of land is done through software and the number of registers to be accessed has been eliminated.” The land record copies are accepted for bank-loans. According to a patwari who is using the Himbhoomi system, “The system is very useful. We don’t have to maintain various registers. Earlier the land mutation updating used to be entered into register after 5 years but with this system it could be done on-line. For updating records of ownership, we used to take 3-4 months but now it takes only 2 days.” Since the Himbhoomi application has to be replicated in all the tehsils in the State, a technical official who is involved with the implementation of the Himbhoomi and training of patwaries
foresees problems of hardware maintenance at field level. According to him, “At present data entry is being done at the district headquarters and all machines are in the district headquarters. When these machines will be taken to tehsil levels, the government doesn’t have technical manpower to maintain the machines on site. Even some of the patwaries are not comfortable with handling the computers despite the training.” The Himbhoomi was proposed to be implemented in other Tehsils of Shimla district by the end of May 2004, but the same has not been done so far.

Most of the departments in the Secretariat and Directorates have purchased latest PCs under various heads. These machines are used only for word-processing and Internet browsing only (some higher officials have taken dial-up Internet connections). In some departments the data is exchanged on floppies. In election department the data between district offices and State headquarters is sent by FTP. Also at many places the computers were seen being used for game playing! There are mixed responses about the utility of these machines from the employee users. According to a Secretariat employee, “Earlier I have to take a lot of trouble to dig out paper files stacked on file –cabinets. But with the computers I can just search for files or letters in a jiffy. Also the computer has made life easier by making on-line corrections to the letters dictated by the boss otherwise earlier whenever the boss was shown typed dictation, we many a time had to re-type the letters to incorporate the correction.” This employee also pointed out that the keyboard of the computer is softer to handle than that of a type-writer, thus ‘less taxing on fingers’. Some employees told that continuous use of computers put strain on their eyes and cause back-pain. Also many employees told that though they were given computer training but they never got a chance to work on computers in the offices. An employee told that using computers is not as secure as working on paper file. He justified his argument saying, “Any body can delete the computer file whenever we just leave the office even for short time. Also the sudden power failure can wash the whole typed material or if there is no power or some fault in computers, we are stuck as we cannot do anything.” Since there is a LAN in the Secretariat and amongst the departments which are on LAN, communications could be sent by E-mail. To this effect an employee told, “Where is the culture and know-how to read E-mails in the offices? And also for authenticity the letters and files need signatures.”
• The Secretary DoIT is also holding meetings of the various departmental heads regarding E-preparedness of the departments. For example on April 22, 2004, a meeting was conducted by the Secretary of Town & Country Planning department. The Department was asked to start using the unused software immediately, train the man-power to handle software, make Website of the more useful to the common man and switch over to E-mail communications right away etc. The DoIT is authorised to give technical as well as ‘reasonability of rates’ advice to government departments on purchase of software/hardware platforms. In the month of March, end of financial year, the department received proposals to purchase hardware/software platforms by different departments. The DoIT through a circular had notified that powerful P-4 machines should not be bought for rudimentary applications and unnecessary large number of PCs and peripherals should not be purchased rather departments should go for LANs for resource sharing. Also departments notified that purchasing computers by individual departments was resulting in hire prices therefore as the DoIT already had rate contract with a private firm at lower rate and equipments should be purchased from that firm. Given the paucity of time as the financial year was coming to the end and to cut down the number of requests coming to DoIT to approve proposals, the DoIT has given the complete specification of hardware and software platforms for small purchases without approaching the DoIT.

• HPSEDC which is supposed to work under DoIT has taken the dealership for supplying hardware products to State departments or to sell hardware in market of a different company than the company with whom DoIT has signed rate contract. An official of the HPSEDC insists that the company with which they are dealing has more credible products than the one with whom DoIT is dealing.

3.9.2 Website Status

• The Website is well registered on the Internet. This was found by searching word “Himachal government” on two most popular search engines Google and Yahoo. The Google search listed 1,03,000 results and the yahoo listed 2,79,000 (on May 22, 2000) results. In both the searches, the Website of HP was listed at first place in the result lists. Similarly the Website is equally readable on two most popular Internet browsers MS-Explorer and Netscape.
As the Website provides interactivity to the citizen to E-mail to CM and get reply within 7 days. A grievance (a genuine grievance of people picked up during field visits to District Hamirpur) was sent to the CM 8 times during the December, 2003 to February, 2004. But no reply was found. Later the enquiries were made in the CM office. During the enquiry it was found that there was no body in the CM branch who knew about the facility and they were passing buck from one branch to another. On further investigations it was found that the facility has been continued long back. In the beginning the charge of handling the E-mail was given to an additional secretary, who further delegated it to his personal assistant. The personal assistant told that he has to print the E-mails and then send these to the CM. As some of the replies, back from the CM could not be traced so it was difficult for him to reply back the E-mails. For some E-mails even the higher officials were competent to reply, but they just use to ask him to frame the replies. There were cases when some E-mails were abusive and in some cases he had to bear ‘scolding’ of the officials to bring such E-mails to them. In one case an important E-mail could not be downloaded in time as he was on leave. For that again he had to bear the responsibility. Ultimately the E-mail facility was given to the PS of the CM and after that its status was not known.

Any changes of information to the Webpages are made by the NIC department because NIC departments have the passwords to log-on to the server. If any department wants to up-date information on its page, then the department first sends it to the NIC either via E-mail or on floppy and then the NIC up-grades new information on its server through FTP which is physically located at NIC headquarters in Delhi. According to an NIC personnel, “the departments having independent Websites on NIC server can update the information own their own. But since the departments don’t have trained manpower for the purpose, therefore we have to mediate. They also don’t know the purpose to be on Internet and rather their higher officials tell them to be on the Internet.” The personnel was also found arguing with a department official to settle the outstanding dues since the time for the same has already passed otherwise the Website of the department was to be discontinued.

Almost no Webpage show the date of its updating on the page.

Some of the Webpages contain out-dated information, even ranging from one to two years old. For example after the assembly elections of March 2003, the
assembly Website contained names of the former ministers and MLAs for four months. Similarly, not all latest vacancies or tenders are put on the sites. According to an NIC personnel, “Sometimes even we remind the concerned department that there is need to update the information. But still they don’t respond. There is no understanding of the concept of Webpage within the government departments.” The only departmental Websites which are routinely updated are of Department of IT, Department of Public Relations, H P School Education Board and Civil Supplies Corporation for various item rates. The weather information is updated quite regularly (though rates of previous three months on May 21, 2004 looked similar).

- The weather information is updated quite regularly. According to an official, “The revenue department of every district is responsible for providing information on weather and an official for this purpose is paid for providing the information. Generally we make sure that information about weather of Shimla, Kullu and Dharmshala should be update because of the tourism importance of these places.”

- The contents of most of the Webpages are fully informative only or partial information is available. The State Website has put information about electoral rolls of the entire State and anyone can find as if he is voter or not by entering his name or photo identity card number and assembly constituency name. However if someone’s name is missing then the corresponding forms for making complaint does not open. In some cases the Website software is designed to be quite interactive but no information has been stored. For example the Website of the police department gives information about the police organisation structure in the State and has provision for knowing the FIR status in any police station by entering the FIR number. But it is not functional.

- The State Website has a disclaimer for the site users. The disclaimer points out that the “contents of the site are informative only and for the benefit of the public. However, these do not confer any legal right or obligation. Even though every care has been taken to ensure the correctness of information and procedures, neither the government of Himachal Pradesh nor the NIC is liable for any inadvertent or typing errors.” It also says, “…merely filing of a grievance on the Website doesn’t confer any right on the aggrieved party and neither the Deputy Commissioner concerned nor the NIC is responsible for any delay in replying/
redressing of the grievance.” The disclaimer requests the readers to notify the discrepancy in errors to the Webmaster.

- There are incidences when the NIC Website does not open on Internet. For example, the Website remained out of reach from December 29, 2003 to December 31, 2003.[^59] The reason for this inaccessibility as pointed out by an NIC personnel was that there could have been some problems with the BSNL and NICNET gateway at NIC central headquarters.

[^59]: We personally tried to access Website of HP on these dates.
Appendix to Chapter 3

Interviews with NIC Head and Secretary DoIT

The following comments are the selected excerpts of the interviews with the State Informatics Officer of Himachal Pradesh NIC Unit and from the Principal Secretary of IT of Himachal Pradesh government. The comments of the Secretary are supplemented with comments of the other IT employees as per directions of the Secretary.

A. Interview with State Informatics Officer

1. How is NIC helping the State on E-governance?

All the activities of computerisation or E-governance in the State implemented or under-implementation are NIC driven, directly or indirectly. NIC has developed various softwares for different departments starting from Secretariat to district level departments. Web presence for all most all the departments has been provided by the NIC. It is all free of cost to the State government.

2. What are the capabilities of NIC vis-à-vis E-governance initiatives in the State?

We have LANs already at the Secretariat building and in all district headquarters, though 10 years old. We are going for major upgradation of the LAN with the financial help of the State government as the new LAN is being implemented in the Secretariat building. Although the setting-up of the LAN has been out-sourced by the State government, yet all the logistics in designing the LAN were provided by NIC. We have PAMA and DAMA connectivity and we have established 2Mbps leased line recently. So connectivity is not a problem now. At State headquarters and in the Districts we have full hardware and software. In future, we are going to establish SAN (Storage Area Network) in the Secretariat.

We have shortage of manpower. Over a period of time work has increased many a time whereas the workforce reduced due to resignations of technical officials who left for better options or due to transfer. Further the ban on new recruitments is also affecting us. At present we are overloaded.
3. Are all the systems developed by NIC in use?
All the systems developed by the NIC are in use to the best of my knowledge. As and when departments bring the problems with the systems to us or suggests any modification, we meet the needs.

4. Does NIC follow proper software engineering techniques during developing software systems? Which ones?
We try to follow all aspects of life cycle (of software project development) in totality. Due to urgent requirements, sometimes, we skip some steps but it does not affect the quality of products. Further users have always appreciated NIC efforts and quality of products.

5. Do you find the State ready for going to E-governance? Or what difficulties you perceive?
The State is ready for E-governance. We have implemented Land Records system, E-governance Centres in some districts and these initiatives are working fine. The citizens are also very happy. Recent HP School Education Board results were put on Web, IVRS, SMS (BSNL, Airtel) and a kiosk has been set-up in DC office of Una district for knowing the results. This helped students of the hilly State to know their results in getting information fast and with comfort.

   Transfer of the officials associated with E-governance activities is the biggest hurdle in the success of E-governance projects. Revenue model (in which users has to pay for services) is also difficult to evolve in the State due to small and sparse population.

6. As you know there are IT policy and E-governance Strategy and Guidelines documents for HP. How far these documents were implemented?
It is in the process of being implemented.

7. How do you perceive concept of E-governance vis-à-vis Himachal? Or what roadmap you propose for moving towards E-governance? (Given the geographic, economic or political/administrative scenario of HP)
NIC’s efforts are towards benefiting rural masses and citizens. Funding seems no problem because if the project proposals are sound and justified, the State/Centre governments are ready to fund.
8. Since NIC people are technical people whereas the government officials are not aware of technical jargon. So during developing any software how NIC tackles these kinds of problems or difficulties faced?

It was the case 5-6 years back. Now everybody is very positive about computerisation and employees participate with enthusiasm. With this attitude, we are able to implement a large number of projects in the State.

9. What steps do you suggest for better co-ordination of NIC and State government?

We do not have any co-ordination problem. We have very good rapport with State government machinery.

10. What constraints on the implementation of E-governance HP face/ may face (Technological and management)?

If there is any problem NIC is ready to give solutions for all technological or management problems.

B. Interview with IT Secretary

1. You have been taking pro-active steps towards implementing E-governance. What goals or phases you have planned in these directions?

Of course we are going in phases and we have goals for each phase. We already have IT policy, Department of IT has been created and we have asked for 1.5 per cent of the budget of all the departments for IT. In the initial phase, we are targeting on Land Records computerisation and for that already we are at the stage of data entry. Also the REFNIC system for file tracking in the Secretariat would be implemented once the ongoing job of LAN establishing is over. Come after sometime, you will see a revolution in the Secretariat offices! We have already started E-governance centres at some districts and phase-wise we are extending them up to tehsils. We are also going to complete linking of Budget and Treasury for on-line bill clearance. Our department is newly founded one and we have recruited technical staff. All our efforts towards setting concrete E-governance goals need time.

2. Why do you think E-governance is important as a special reference to HP?

E-governance will speed up flow of information, bring transparency and less paper government. These attributes associated with concept of E-governance are also needed in HP.
3. How is the co-operation, you are getting in your endeavour, from government and officials?
The government is supportive. The officials’ attitude is mixed one. And as you know initial inertia is there in government sector.

4. Do you see any resistance from employees while going towards E-governance?
Definitely we anticipate resistance from employees as we are introducing a new concept in the work culture of the government offices. But we will solve all these problems. Already employees are being trained by HIPA and by other organisations.

5. Is mobilising funds a problem for E-governance in the State?
Definitely, funds are problem. We are trying to arrange the funds. But first of all we should we clear in our mission.

6. How do you perceive the Role of NIC vis-a-vis the E-governance initiatives?
NIC is a service provider for E-governance systems and definitely it will remain a service provider in future also. But NIC is also a government organisation. NIC does not have sufficient manpower. Secondly we don’t expect any mission mode reaction from NIC that we assign them task and they will finish it in time.

7. Are you developing your in-house infrastructure- hardware, connectivity and human resources- or planning to out-source development of E-governance applications?
We are definitely going to out-source the E-governance activities. We have a team of 4-5 technical people at the State level with some supporting staff. (On a separate full fledged department on the analogy of PWD?) PWD does not execute work on its own rather it also out-sources. Our team will prepare the plans and private partners will execute it. We want results and results in time. For that even RCC or private firms through open tenders are welcome. If we go for public-private-partnership, the private partners will associate only if they have some stake otherwise why they should join us?

8. The State government already has IT Policy and E- Governance Strategy & Guidelines. How far these documents were implemented?
These are in the process.

9. Most of the systems NIC has developed either are not in use or under-utilised.
Your comments, please.
Yes, I have heard that. IT Department is going to take stock of this situation. Even the computers purchased in different departments are not being used optimally. There are cases where the computers are being misused. We are training people and trying to put computers for proper use. Here in Secretariat we are putting Windows-XP on each
computer and softwares would be kept on centralised server. We will give controlled access to softwares so that no misuse of resources and time is done.

10. Is government planning to go for re-engineering its processes to reap the benefits of IT?

Business process reengineering is first step in going for E-governance and IT use comes later. Without BPR there is no use of computerisation. Definitely we will go for BPR for every computerisation effort. We have just recruited technical staff, including IT manager and programmers. We are assigning our staff different tasks. They will interact with government departments to conduct systems study and make suggestions. They would simplify and bridge the gap between IT jargon and officials requirements.

11. You have LokMitra as well as Himbhoomi projects going on pilot basis in the State? How do you evaluate the achievements/ operational challenges of these projects?

LokMitra was not a good model to be adopted in small district of Hamirpur. Its success would have been apparent had it been implemented in bigger district like Mandi or Lahaul-Spiti having difficult terrain. In a small district like Hamirpur, people would like to approach directly the offices. The Soochaks have very different kinds of businesses along with Soochna Kendras. And when they were given free equipments (90 per cent money) by the government to the kiosks, everyone found it attractive to open a kiosk! We are not going to revive LokMitra but we will follow alternate models. E-Choupal is a good model to be followed. (On Andhra Pradesh models) We are going to concentrate on rural masses not on urban centres.

As far as Himbhoomi is concerned, I am sad to say that we were the first in India to start land records computerisation and add on-line mutation module to it, yet we are the last perhaps to finish data entry. We are going to hire private parties to speed up data entry. (On a private party who recently abandoned data entry half-way) We are going to blacklist this party.

12. You are also holding the additional charges of BT and S&T and your job as IT Secretary is quite challenging. Where do you put more priority?

Definitely, on IT.

13. Transfer in government is a major roadblock in sustaining E-governance initiatives. But steps do you suggest to tackle this problem?

Yes it is. It would be improper for me to answer this question!