# Informatics

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### **Cover Story**

**Ministry of IT- A Welcome Initiative** 

MIT - The Functions

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Information Technology has emerged as one the most significant sectors contributing to the Nation's Growth in the last decade of this Century. The Prime Minister has given a call to make India an Information Technology superpower by 2008. As a major step in the direction of fulfilling this dynamic vision, the Government has announced the formation of **a new Ministry for promoting the IT Sector.** Appropriately enough, the Ministry is named as the **Ministry of Information Technology (MIT) or Soochna Praudhikiki Mantralaya**. The initiative of the Government in setting up MIT stems from the realization that IT is the key area for catalyzing economic activity, improving governance and the over all quality of life in the new millennium.

The Ministry, headed by the Cabinet Minister Sh. Pramod Mahajan, comprises the erstwhile Department of Electronics, National Informatics Centre and the Electronics and Computer Software Export Promotion Council. Besides, various Public Sector Undertakings and Autonomous Societies in the field of IT have also come under the purview of MIT.

The IT Ministry is expected to play an important role in the days to come, as IT is tipped to be the "key sector" in the new millennium. As an important task, MIT will review the measures by which Indian companies and products can ride the Internet boom with emphasis on more Indian content on the Net. It will also suggest measures to catalyze the growth of exports with the extensive use of E-commerce and Electronic Data Interchange. Besides, the Ministry will outline the extensive use of Information Technology in all sectors of the economy.

A list of the important functions coming under the purview of MIT, as mentioned in the Gazette Notification (Part II-SEC. 3 (ii) S.O 1036 (E)), is mentioned here

- 1. Policy Matters relating to Information Technology
- 2. Promotion of Knowledge based enterprises
- 3. Development of Electronics and Co-ordination amongst its various Users
- 4. All matters relating to the personnel under the control of the Ministry
- 5. Co-ordination of requirements relating to Electronic Processing Equipment (Computers)
- 6. All matters pertaining to Silicon Facility

7. All matters concerning computer based information technology and processing including Hardware and Software, standardization of procedures and matters relevant to international bodies such as IFP,IBI,ICC

- 8. Promotion of Internet
- 9. Promotion of Information Technology Education and Information Technology based education
- 10. National Informatics Centre
- 11. Electronics and Computer Software Export Promotion Council.

#### An Impressive Beginning

The Prime Minister's IT Task Force, in its recommendations, had called for some vital steps to be taken regarding the legalization of E-Commerce and for ensuring a regular flow of funds in the IT sector. Immediately following its formation, the Ministry of IT has taken dynamic steps to make sure that these recommendations are fast carried out in their true spirit. A Committee of Ministers, under the Chairmanship of Minister IT, has been constituted by the Govt to coordinate issues related to convergence of IT technologies and services. The Ministers of Communication, Commerce and I&B are the members of this committee. Some of the other major steps in this direction include the setting up of Venture Capital Funds and introduction of IT

#### **Venture Capital Funds**

The software industry is one of the fastest growing industry in India with an annual growth of over 50%. With the sustained and continued growth of software industry, availability of finance has become an important issue facing the industry. Therefore, the IT Task Force set up by the Prime Minister , in its first report had recommended that Banks/ FIs shall set up joint ventures with Indian or foreign companies for setting up of Venture Capital Dedicated Funds to cater to the credit needs of the industry and to encourage small scale enterpreneurs. With this in view , the Ministry of IT is taking concrete steps to set up Venture Capital Funds so as to ensure that the booming software industry does not have to face a financial crunch at any stage. As a initiating step, Prime Minister Sh Atal Behari Vajpayee recently launched the Rs 100-crore National Venture Fund for the software and IT industry.

On this occasion, Information technology Minister Sh. Pramod Mahajan said **``We are here to** welcome IT companies keen to start units in the country with a red carpet and certainly not with red tape", thus sending positive signals to non-resident software professionals.

#### IT Bill'99

E-Commerce and Internet are the two most important developments not only in IT but in the world of business as a whole. As more and more activities are carried out by electronic means, it becomes important that evidence of these activities be available to demonstrate legal rights. The IT Bill , presented by the Ministry of IT , provides, among other things, for a legal framework so that the information is not denied legal effect, validity or enforceability solely on the ground that it is in the form of electronic records. The Bill provides to facilitate electronic transactions in trade and commerce and eliminating barriers to E- commerce resulting from uncertainties over writing and signature requirements.

This is just a beginning. With the technologies of Internet and E-Commerce all set to boom the world market, the Ministry of IT would have a vital role to play in ensuring that the IT sector in India attains new heights of growth in the years to come. To know more and more about the latest regarding the Ministry of Information Technology, please visit the website : http://www.mit.gov.in

### **Around the NIC world**

Workshop for Judges at Himachal Pradesh

- NIC at Chandigarh Carnival'99
- Video Conferencing Services Utilized
- National Y2K Control Room at NIC
- New Web Sites on NIC's Web Servers

# **Products/Services**



#### Super Cyclone in Orissa : NIC Lends a Helping Hand

The Super Cyclone of October 29,1999 was one of the worst in living memory in terms of its fury and the extent of damage and destruction caused in the 12 coastal Districts of Orissa. A Large number of organizations relating to different Ministries, Departments, various State/District Administrations and the Government of Orissa were involved in the relief operations which were huge and gigantic in proportion. NIC extended its level best support in every possible form towards fighting the calamity.

An inter-departmental unified control room of Natural Disaster Management Group was set up by the Government in the Department of Agriculture and Co-operation at Krishi Bhawan to monitor the rescue and relief activities. A high level team from NIC under the leadership of Dr.N.Vijayaditya, Deputy Director General and Shri M.Moni, Senior Technical Director, and comprising 20 officers was deputed to oversee the regular operations of the control room with respect to Information Technology related issues. This team was involved in the operations round the clock and worked in close co-operation with the Control Room. Further, another team of officers from NIC were deputed to Bhuvaneshwar.

The support extended by NIC included establishing Video Conferencing Facility between Orissa State Secretariat and other sites, providing GIS Support for relief management and also setting up a special web site.

NIC established one mobile VSAT at the Secretariat Buliding in Bhuvaneshwar to facilitate video conferencing between Bhuvaneshwar, Krishi Bhawan (control room) and Vishkhapatnam (relief base). Senior Officers of the State Government and various Ministries of Government of India extensively utilized the Video Conferencing communication facility. A VSAT was also installed at the conference room of the Hon'ble Chief Minister who spoke to the concerned relief officers through video conferencing.

Facilities such as E-mail and Internet connectivity were also upgraded in the control room and these facilities were extensively used to improve the efficiency and effectiveness in the working of the control room and to make it as automated and paperless as possible.

Apart from the above, a GIS based Relief Management Software was installed in the control room and the system was made operational on 2nd November, 1999. Based on the damage information and relief material inflow, various thematic maps were generated. These thematic maps were then given, through the Ministry of Agriculture, to the central teams who visited the affected areas of Orissa.

A special web site (<u>http://www.nic.in/cycloneorissa</u>) was promptly launched to enable the anxious people and concerned organizations from all over the world to get latest, accurate and updated information about the situation.

#### From the Hon'ble Minister.....

Sh. Nitish Kumar, the Hon'ble Minister of Agriculture wrote a letter to all the Members of Parliament apprising them of the relief measures undertaken by the Government in the wake of Orissa Cyclone. An extract from the Minister's letter (dated 3rd December,1999), mentioning NIC's role in the relief operations is reproduced below :

"The Control Room in the DAC has been strengthened, upgraded and modernised to cope with the increased demand of co-ordinating relief measures. The Control Room is now headed by officers of the level of Joint Secretary and functions round the clock. Communication facilities have also been upgraded to enable contact with the remote areas of the Country. With the help of the National Informatics Centre (NIC), the information technology base has also been strengthened and a computerised database and software has been developed. Website was promptly launched to enable the interested and concerned people, organisations, foreign agencies and countries to get updated information about the situation. Email and Internet is being increasingly used so as to improve the efficiency and effectiveness in the working of the Control Room and make it automated and paperless as far as possible."

#### **Company Directory Released on CD-ROM**

The Department of Company Affairs, Ministry of Law & Justice and Company Affairs recently released a company directory on CD-ROM. The directory was released by Sh. L.M. Gupta, Regional Director, Northern Region, Department of Company Affairs.

The CD-ROM, developed by the NIC J&K Unit comprises the details of more than **five lakh companies** and is expected to be extremely useful for the chartered accountants and company secretaries. The Department plans to update the Directory from time to time. At the function , Sh. AK Aggarwal, SIO , NIC J&K demonstrated the different aspects and technical details of the CD-ROM to the audience.

#### Land Records Computerization in Haryana

The Land Records Computerization drive in Haryana reached a new milestone recently when the Minister of State for Revenue Sh Kailash Chand Sharma announced that with NIC's help, 75% data entry work of Jamabandis for almost all Districts in the State has been completed. This feat was achieved by NIC-Haryana State Unit in a record time and using even lesser funds than allocated for the purpose.

Software module for generating new Jamabandis periodically has been succesfully implemented in Rewari and the same is being done in the remaining districts. The results of issuing computerized Nakal to general public in Rewari have been encouraging. This module has helped Patwaris in saving time and energy and will lead to standardization in maintenance of Land Records. Mutation and Khasra Girdawari Modules, developed by NIC- Haryana, are being used for data entry and nakal generation in few Districts.

The Government of Haryana has plans to make Land Records Database available to public on CD-ROM and NIC -Haryana has already taken initiative in this direction.

#### **Court Cases Monitoring System at Gujarat**

NIC -Gujarat State Unit has developed a generalised software called Court Cases Monitoring System (C. C.M.S.) with a view to aid any department or individual in monitoring the cases pending in different courts such as Supreme Court, High Court, District Court, Labour Court, Consumer Court etc.

This software is quite comprehensive in nature and maintains practically the entire history of the case. The information maintained includes the case number, classification, file serial number, litigant's details, Advocates' & Judge's details, documents filed, dates of hearing, references, appeals filed and action being taken by the department.

The salient features of the software are :

- Availability of latest and up-to-date status of any pending case
- Availability of the information of the cases to be attended to during specific period.
- Statistical information for decision making

Maintenance of the disposed cases for future reference.

#### Patent Info on Internet

The Intellectual Property & Know-How Informatics Division of NIC has launched the first ever free web site in the world offering the complete INPADOC database containing global patent information in all fields of science and technology. Targetted towards a global user, the web site has attracted thousands of users across the globe.

The site, accessible with a free registration contains about 32 million (3.2 corers) bibliographic records (with abstracts) of technologies patented since 1968 onwards in some 70 countries in the world. An easy search facility with most popular search fields like Title, Company Name, IPC Codes, Patent No., publication Date, Inventor etc. helps the user locate his or her required patent information and download or print it..An equivalent search facility comes handy to track the global spread of a particular patented technology for taking vital decisions regarding R&D, filing of patent applications, export-import of technologies, joint ventures etc.

The web site is available at <a href="http://pk2id.delhi.nic.in">http://pk2id.delhi.nic.in</a>

#### **GOI Directory on the Net**

With a view to provide a one-stop reliable source for the Official Web Sites of the Govt of India, a new On-Line Directory of official GOI web sites has recently been launched by NIC..

This comprehensive Directory provides links to the Official web sites of Govt of India enlisted under specific categories such as

- The Indian Parliament & Apex Bodies
- Ministries & Departments
- States and UTs of India
- Organizations
- Indian Missions Abroad

- Educational Institutions/Universities
- Banking, Financial & Insurance Institutions

These websites can also be directly searched using relevant keywords.

A facility has been provided wherein people can directly suggest the site to their friends from the page itself and this facility is being heavily used by the visitors. The website is being updated regularly to make it more comprehensive and include links to more and more official web sites.

Visitors to this site can also suggest a relevant web site to be added by sending details of the same through email to <u>webmaster@www.nic.in</u>

The on-line directory is available at <u>http://goidirectory.nic.in</u>

### Projects

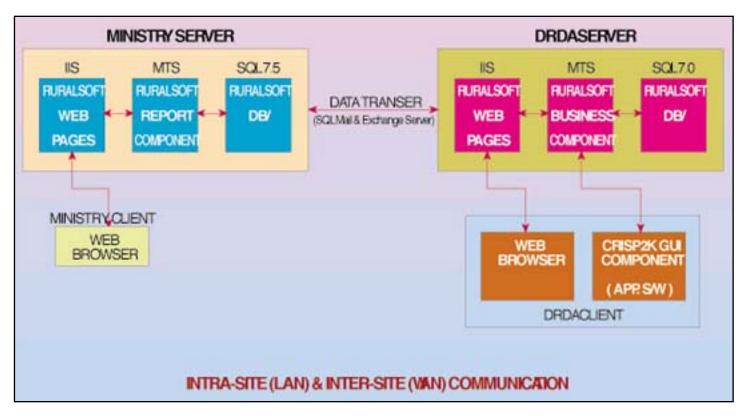
#### Ruralsoft : The New Version of Crisp Software Based on Component Development Approach

A new version of CRISP software package called "RuralSoft" has been designed and developed using latest technologies to meet the needs of new poverty alleviation schemes, which have emerged as a result of restructuring of the earlier schemes by the ministry. The requisite computing and communication environment has already been approved by the Ministry which includes one Server (Windows NT) and five clients (Windows 95 or latest), SQL Server 7.0, Visual Basic (Enterprise version or later) and MS-Office 97 (or latest). VSAT based connectivity has also been sanctioned which will take effect in 15 districts selected by the ministry, in the pilot phase and is likely to be extended to all DRDAs.

#### **Ruralsoft Technology**

RuralSoft is based on three-tier architecture, wherein the Presentation, Business and Database logic have been segregated and addressed to as distinct entities. Visual Basic has been used to develop the front end, whereras the business logic resides at the MTS and SQL Server7.0 has been used for the database.

The application has been designed based on object-oriented line of thinking. Component Development approach has been adopted to split the software into various components, each meant for a specific kind of functionality. There are components (Infrastructure Objects e.g. RuralSoft specific controls like 'List of values', 'Grid' etc.) which handle the GUI, while there are other components to deal with business rules (Business Objects e.g. Classes for creating beneficiary for a particular poverty alleviation scheme, like 'SGSY') and data services (Data Service Components e.g. 'DB Connection'). These components adhere to the Component Object Model (COM) specifications. Interface inheritance has been used to achieve reusability leading to simplified design at the User Interface level. The entire approach yields several benefits. In future, if any change occurs in any of the application tiers, only the affected component will need to be plugged off to make the required change without disturbing the rest of the application. The design also promotes reuse. Any customisation in the software can easily be effected using the already existing components which have been made generic enough to take care of future customisations. Besides the component based structure, another important feature of RuralSoft is its Web-based Report section, which will highly strengthen the monitoring process. The reports are actually Active Server Documents developed using IIS Application feature of Visual Basic. The template for each of the poverty alleviation schemes have been so designed that a single template is used for generating reports on-thefly depending upon the district selected by the user. The data is supplied to the reports via a COM component, which is specially designed for the purpose. The reports contain textual as well as graphical data incoporated at appropriate places. These reports can be accessed from within RuralSoft or directly from Internet Browser by connecting to the web-site which will be hosted at the Ministry Server, thus facilitating on-line monitoring of data. This web site will also provide other State-of-the-art technologies like OLAP, GIS and dynamic queries to strengthen off-line monitoring.



Another notable aspect of RuralSoft is its data transmission over Wide area Network. Each of the district will be able to send its regular monthly report to the ministry using Exchange Server and SQL Mail. The data will be sent through the mail as an attachment file which will be detached automatically at the other end, followed by automatic insertion of the data into the database.

Ruralsoft is going to provide benefits to all its users, right from the data entry staff at DRDA to the monitoring officials in the ministry. Its easy-to-use and intutive GUI will facilitate the data entry operation, the web-enabled reports, OLAP & GIS features will strengthen the on-line as well as off-line monitoring process both at ministry and DRDAs. And the objected-oriented technology behind its development will not only help the future developers to easily maintain the software but also ease a lot of burden in case of future customisations.

For further information, please contact : CRISP Division 3rd Floor, NIC Headquarters Tel No. 91-11-4360563 Email : crisp@hub.nic.in

# In the Limelight

NIC Fatehgarh Sahib - Striving for Excellence

**NIC Centre** 

Accolades all over

**Projects Accomplished** 

#### NIC Fatehgarh Sahib - Striving for Excellence

The historic and pious district of Fatehgarh Sahib in Punjab came into existence on the auspicious day of Baisakhi on 13th April, 1992. The District has derived its name from Sahibzada Fateh Singh, the youngest son of Guru Gobind Singh, the tenth Guru of the Sikh Religion.

The area of Distt., comprising 441 villages, is 1,18,219 Hect and it has a population of 4,61,520. Fatehgarh Sahib is bounded by Ludhiana and Ropar in the North, Patiala in the South, Ropar and Patiala in the East and Ludhiana and Sangrur in the West. The Distt. is 500 Kms. away from Chandigarh, the capital of Punjab. The economy of the District depends mainly on agriculture and allied activities.

#### **NIC Centre**

The NIC District Computer Centre, Fatehgarh came into existence in the month of August 1994. The Centre was inaugurated by the then Chief Minister of Punjab, Late S. Beant Singh. Being a newly established District in the month of April 1992, there was paucity of space to accommodate various district level offices and at that time the District Computer Centre was provided with a small room of approximate area of 200 sqft. The foremost tasks before the Centre were to generate computer

awareness among the officers, to promote the informatics culture and create the databases of important nature for Distt. Administration & State Government. The NIC Distt. Computer Centre facilitated the development activities of the District Administration in a big way by creating a comprehensive computerized village level Information System with 130 developmental parameters. Other important Information Systems developed by the Distt Centre in its first year of inception include M.I.S. for Revenue Recovery, Arms Lincencing, Database of beneficiaries of various Social Security Schemes, Twenty Point Monitoring, MIS of cooperative Societies, Small Saving Schemes Monitoring and Payroll & GPF Information system in the first year. Besides, the NIC Centre helped the Distt Health Authorities in the nation wide Pulse Polio Immunization programme by developing computerized MIS to cater to local requirement and for sending reports to State as well Central Govt. The Services of NIC were acknowledged well and the Distt. Health Authorities conferred the appreciation certificate and memento to the DIO.

#### Accolades all over

The NIC Fatehgarh Sahib Centre helped the District Administration in the successful completion of Lok Sabha Elections which was again appreciated by the then Deputy Commissioner R.L.Kalsia. IAS by conferring appreciation letter. As an acknowledgement gesture for the services rendered by NIC, the District Administration provided a well furnished Computer Center covering an approximate area of 1500 sqft. in the newly build Mini Secretariat, which was again inaugurated by the then Chief Minister, Smt. Rajinder Kaur Bhattal on 26th Dec'96. The NIC District Computer Centre again helped the District Administration in conducting the Assembly polls in Feb. 1997. The Service of NIC were widely acknowledged by the then Dupty Commissioner Smt. Anjali Bhawra, IAS.

To know more about Distt Fatehgarh Sahib check out the Website : <u>http://districts.nic.in/</u> <u>fatehgarhsahib</u>

#### **Projects Accomplished**

In line with its motto to help the district administration in the overall development, to implement various socio economic schemes, and to bring efficiency in government offices, NIC has implemented various

computerized M.I.S. These include MIS for Village level Development Indicators, Grants Monitoring System, Micro Planning for terrorist/ riots Focal Point Schemes, Link road Repair Monitoring System, Database of Beneficiaries of Social Security Schemes, Database of terrorist/ riots effected persons, Arms Licensees, MIS for Revenue Recoveries, MIS for Total Literacy Compaign, MIS for Cooperative Societies, PLAN-MIS, Twenty point Monitoring system, Small Savings Schemes Monitoring, Computerization of District industries Centre, DRDA Computerization, Reference monitoring System and Payroll & GPF Information System. Also, the Computerization of DRDA under Client Server environment is in progress and Computer Centre for Rural Youths under TRYSEM is already running in Distt. Fatehgarh Sahib. Beside the above, NIC Unit was also actively involved in the implementation of Information system for conducting National wide special Health checkup programs for schools in July 1997, conducting Lok Sabha polls in Feb., 1998 and Panchayat Samiti polls in May 1998.



The web site of Distt Fatehgarh Sahib being inaugurated by Sh. Prakash Singh Badal, Cheif Minister, Punjab

Another big achievement of the Distt Unit lies in making Fatehgarh Sahib the first Distt in Punjab (after the Pilot Distt Ropar) to carry out 100% computerization of Land Records. The Distribution of Records of Right (ROR) have also begun in one Tehsil.

Distt. Fatehgarh Sahib has been chosen as pilot Distt. for computerisation of cadastral mapping by Deptt. of land resources, ministry of rural development, Govt. of India

The excellent performance of NIC Fatehgarh Unit has gained wide appreciation from the Distt Authorities. The DIO Sh S.K Banga was honoured in a public function on Republic Day by the Speaker, Punjab Vidhan Sabha, Sh.Charanjit Singh Atwal.