# Informatics

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# **Cover Story**

#### **Exam Results on the Net**

- A Sound Set-up
- The Services
- The Future
- The Results on NICNET.....

The Board Examination Results of the School Students every year are a source of great anxiety and vast media attention. Anxious students and parents throng their respective Schools on the day of the Results, often having to wait in queues to see how they have performed in the examination. This year, the revolutionary technology of Internet brought about an end to these queues all over the Country as NIC published the Examination Results of Central Board of Secondary Education (CBSE) as well as many other State Education Boards on its specially developed website at

#### http://www.results.nic.in

Apart from the School Board Results, this website also carries Results of various Entrance Examinations such as Medical and Engineering and other important Exams such as that of Civil Services.

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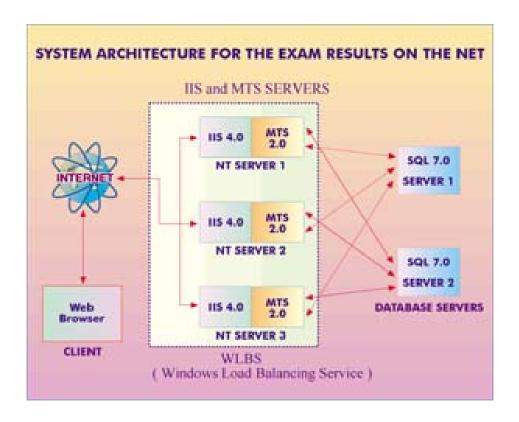
#### **A Sound Set-up**

Within a matter of a few days, the recently launched "<u>results.nic.in</u>" has become a house-hold name as being a one stop source for providing various Examination Results on the World Wide Web. But this popularity is not riding high on publicity alone, it has the backing of a sound and secure Infrastructure set up to ensure that the Results were available to the students in a fast and easy-to-access manner.

A total of five state-of-the-art machines were dedicated for the purpose of effective dissemination of the Results over the Internet. Two of these systems were backend machines which were designated as SQL Database servers and the rest three machines served as web servers running on Internet Information Server (IIS) Backbone. The technology of Active Server Pages (ASP) was used along with DCOM (Distributed Component Object Model), developed in visual basic to access the backend database residing separately on MS SQL 7.0 servers.

Along with Internet Information Server (IIS) which was responsible for holding HTML and ASP Pages, the Microsoft Transaction Server (MTS) was used to host the DCOM components having benefits of resource pooling and high performance.

For the first time, the concept of "**Load Balancing**" was utilized whereby the traffic load was balanced between three servers simultaneously. This was done while anticipating the huge number of hits which the website was expected to generate. Also, it meant that in case of any sudden breakdown of any of the servers, the remaining would share the load thus ensuring that the visitors have a smooth access to the Results.



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#### The Services

Apart from hosting the Results of various Examinations on the website, NIC also provided the service of sending the consolidated school wise reports through email to various schools. Also, the Application form for re-evaulation of the Results was put on the CBSE web site. (<a href="http://cbse.nic.in">http://cbse.nic.in</a>).

The success of the Results web sites is evident from the large no. of hits received by them. The CBSE results web site alone fetched over 12 million hits in a matter of a few days. The other State Level results also received an overwhelming response.

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#### The Future

NIC's efforts in disseminating the Results through the Internet were applauded by various authorities and the Press Media. The Project was hailed as a remarkable Public Utility exercise aimed at serving the common masses and making their lives easy by the effective utilization of the latest technology. Encouraged by the success, NIC intends to offer its services ,in future, to all the Education Boards and Institutions across the Country so that they may utilize the global medium of Internet to the fullest advantage of themselves and their students.

With the growing popularity of Internet and its fast penetration into the lifestyles of the Indian Populace, the time is not far when all the Examination Results at various level would find their place on the WWW and would facilitate students to avoid the tensions of waiting in queues to see how they have fared.......

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The Results on NICNET.....

Till the time this issue of Informatics went to the Press, the following Results were already published on the website 'http://results.nic.in'

- Central Board of Secondary Education (CBSE): Class X, XII
- Madhya Pradesh Board of Secondary Education (Class X and XII)
- Karnataka State Board (SSLC)
- Board of Secondary Education, Manipur (HSLC)
- Maharashtra State Board (HSC, SSC)
- Meghalaya Board of School Education (SSLC)
- Council of Higher Secondary Education, Orissa
- Tamilnadu State Board (Class X, XII)
- Board of Secondary Education, Rajasthan, Ajmer
- CBSE All India PMT/PDT Exam 2000
- Veterinary Council of India, AICEE Exam 2000
- CENTAC JET' 2000, Pondicherry
- Madhya Pradesh Professional Examination Board
- Indian Council of Agricultural Research (All India Entrance Exam)
- Professional Colleges, Goa (Merit List of Admissions)

- Civil Services Exam-1999
- Staff Selection Commission Exams
- SCERT (ETE Entrance Test)
- CA (Intermediate) Exam Results

# **Around the NIC world**

- Workshop on Education Survey 2000
- Medlars Training Programme
- Workshop on Land Records
- IT Minister Visits Assam
- Information Kiosk at Pondicherry Secretariat
- On-line Cell for Land Records
- Workshop on IT in Schools
- New Web Sites on NIC's Web Services
- NIC's Video Conferencing Service goes Places

# Products/Services

- Computerized Energy Bills by Bihar State Electricity Board (BSEB)
- Public Grievance Monitoring System
- Registration Information System at Haryana
- Punjab Registration Information System Module (PRISM)

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### Computerized Energy Bills by Bihar State Electricity Board (BSEB)

To affirm its commitment of the very best service to consumers, for the first time in Bihar, BSEB has launched a comprehensive program involving computerized generation of energy-bills. The program that has been designed and developed with the help of NIC also covers cash collection counters throughout Patna, the State Capital, which has been taken up as the Pilot District for this project. Each of the 40 cash collection counters here have been equipped with latest Pentium-III based systems to track and update energy records of consumers in their locality and help provide more transparent interface to them. The system also tracks energy consumption pattern and can point out cases where there is an abrupt deviation from expected values.

Based on Oracle RDBMS running on Windows NT platform, the system has been specifically designed to be a robust and secure application. Running successfully for over a month now, user feedback confirms that it has indeed eliminated a lot of weaknesses that were inherent in the manual system and thus has earned a new admiration in the eyes of thousands of consumers. Emboldened by the exercise, NIC is now moving ahead with renewed vigour and vitality to implement similar solution at other divisions of BSEB with an ultimate aim to cover the entire state over next few years.

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#### **Public Grievance Monitoring System**

NIC Goa State Unit has developed Public Grievances Monitoring System (PGMS) for registering Public Grievances and effective monitoring redresses thereof. The system maintains details of all grievances registered and action taken by the all departments concerned and has provisions to:

- Register Grievances
- Printing forwarding letter to all Departments/officers concerned
- Generate reminders periodically

The system produces a list of pending grievances age wise and department wise. This is very useful to Directorate of Public Grievances for Monitoring and Reddressal of the grievances of the public.

Beside the Grievance Monitoring System, the NIC Goa Unit has also developed a Sales Tax Collection Monitoring System for the State. The System has been implemented in the Head Office of the Sales Tax Department and also in seven Ward Offices. The System produces a comprehensive list of the Sales Tax defaulters. Also, Application Register, Dealer Register, Register of Revenue Certificates, Refund Register etc are all maintained on the computer as a part of the System.

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### **Registration Information System at Haryana**

The Haryana State Unit of NIC has developed Haryana Registration Information System (HARIS) for the State. HARIS calculates Stamps Duty & Registration Fee based on the Collector's rate and Current rates given in the deed. It captures the photographs of parties involved and witnesses using Digital Video Camera. It monitors the impound cases and generates the registers, which otherwise, were being monitored manually. The training on **HARIS** to Tehsildars, Naib-Tehsildars, Registry Clerks of 7 districts was imparted for 5 days at Haryana Institute of Public Administration, Gurgaon. HARIS is being implemented at 7 locations [Tehsils at District level] in first phase. Remaining 105 locations [including Tehsils & Sub-Tehsils] will be covered in 4 phases in near future. The CD containing HARIS was recently released by the Hon'ble Chief Minister of Haryana Sh. O.P Chautala at a special function.



Haryana Chief Minister releasing the CD of HARIS software

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#### **Punjab Registration Information System Module (PRISM)**

NIC Punjab State Unit has developed Punjab Registration Information System Module (PRISM), a software for registration of properties and other documents. It has been designed using state of the art technologies keeping in consideration the future trends and requirements.

PRISM has been conceived with the objectives of providing on the spot registration and a single window service to the users. It captures photographs of all the parties and prints at the backside of the registered document to avoid frauds in identification. The software helps in ensuring proper valuation of the properties, minimizing the revenue leakage, increased transparency in the system, maintenance of permanent record of deeds on CD-ROM, facilitating on line query on registered deeds, automatic issue of reminders for mutations and better monitoring of revenue collection. The entire registration process takes only 3 minutes.

PRISM has been developed on the Windows NT platform using Visual Basic 6.0. The hardware such as PIII systems, TV Tuner card with software, CCD camera and a laser printer have been used for every Tehsil. The software is available on CD and is easily installable. The Best features of the CARD system developed by NIC-AP state Unit have been incorporated and features of photo capturing and single window have been added to it as per the requirement of Punjab. On the operational front, the prominent characteristics of PRISM include data entry at source, security and operations by existing manpower.

PRISM is being implemented in all Tehsils of the state. The acceptability and popularity of the system can be gauged from the interest shown by the administrators as well as public, regularly covered by various local newspapers.

# **Projects**

Online Project Information and Monitoring System of Capart

**Brief Description of the Project** 

**Integration of PIMS over Wide Areas Network (WAN)** 

- Computerization of RTO Goa
- Composite Payroll System

### **Online Project Information and Monitoring System of Capart**

Council for Advancement of Peoples Action and Rural Technology (CAPART) is a nodal agency of Ministry of Rural Development to promote the voluntary action and people's participation in rural development and development and dissemination of rural technology in the rural areas. The Council primarily funds the Voluntary Organisations (VOs) working in the rural areas through its Headquarter and nine Regional Committee offices (RCOs). In order to not only develop the data bank on the VOs but also to effectively process and monitor various projects submitted to the council for the funding, a Voluntary Organizations' Assistance and Information System (VOAIS SOFT) has been developed. One of the major components of the System is the Project Information and Monitoring System (PIMS) which has been developed in Oracle7/ Unixware and is operational at the Headquarter and all the RCOs. NIC is the Technical Consultant for the project and the End users include CAPART, VOs, Government Organisations, Social Workers, Academicians Researchers etc.

**Brief Description of the Project** 

The PIMS consists of three entities, namely, VO who approaches to the Council for funding, the Project which is submitted by the VO to the Council for funding and Monitor who checks the eligibility of the VO as per the norms and evaluates the progress of the projects at various phases. Any proposal submitted by a VO is scrutinised by the project division of the Council and then forwarded to the Management Information Systems Division (MISD) of the Council for generating a unique file number. Further processing of the files are done by various Project Divisions. The processing and evaluation of the project is totally integrated with PIMS which leaves no scope for any data gap. All kinds of letters and circulars associated with VOs, Monitors and complete life cycle of the Projects are automatically generated through the PIMS.

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### Integration of PIMS over Wide Areas Network(WAN)

Since all the offices of the Council have been maintaining their PIMS database where information on VOs and Monitors are common across the enterprise, the distributed database architecture for PIMS is conceived and adopted. The database on different sites are updated and maintained for consistency over WAN (FTDMA VSAT using NICNET), with the help of two-phase commit under Oracle RDBMS environment. A database is also being maintained at the corporate headquarters of CAPART and is regularly updated by operational database from the sites. The database is also web enabled and can be accessed through the 'NGO search' section of the CAPART website at

http://capart.nic.in

For further information, please contact:

rai@caparthq.delhi.nic.in

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### **Computerization of RTO Goa**

A Computerized Information System has been implemented by NIC at the Regional Transport

Office in Goa. The software, earlier developed and implemented for the Delhi Transport Department Project has two important modules, those pertaining to Registration and Tax collection. The modules were inaugurated recently and are now in regular use. The Registration Module has provisions to register all types of vehicles in the minimum possible time and the computerized RC books are issued to the parties on the same day. The Module also takes care of transactions such as change of address, NOC, transfer of ownership, hypothecation etc. The Tax collection Module has provision for collecting tax for all the transport vehicles and printing computerized receipts. The computerization of RTO Goa has led to a great improvement in the overall efficiency of the Department.

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#### **Composite Payroll System**

Payroll computerisation is one of the common activities across all the Govt departments . The different departments have developed their Payroll computerization systems with different specifications and on different platforms. On the suggestion of the Department of Administrative Reforms, NIC has taken up the "Composite Payroll System" project to replace all the existing Payroll Packages, developed under different platforms and running in various Central Government Offices through out India by a generic software package. Accordingly, the requirements of various departments have been analyzed and a standardized software has been designed and developed. The new composite payroll software after its implementation in all Central Government Offices will result in the easy portability of the data of various employees who are transferred from one office to another, especially the All India Services employees. This is because the payroll database structure will be uniform throughout all the government offices.

The First Version of the software is ready for implementation and it covers two major modules viz "Salary Preparation Module (Regular and Supplementary)" and "DA Arrears Module". The "Master Maintenance Module" is also included in this software for maintaining various Master Tables. The software has been developed in Java with MS-ACCESS as Back End. Apart from the normal features, the package covers the following extra features:

- Part salary / Period wise salary calculation
- Salary calculation of suspended and pensioner employees
- Monthly sche dules of various recoveries PAO wise
- Forwarding page of pay bills

- Increment Due certificate
- MIP (Men-in-position) vs Pay Drawn details statement

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# In the Limelight

NIC.	Jhunihunu	District	Centre - S	preading	<b>Informatics</b>	<b>Culture</b>

- Accomplishments
- Other Activities

The District of Jhunjhunu, surrounded by Aravali hills and caressed by the river 'Katli", is situated in the North-east part of Rajasthan. Most of the area is under desert. Jhunjhunu is commonly known as the "Copper DISTRICT" of India. The main occupation of the public is agriculture.

The NIC Jhunjhunu District Centre was established in 1988. Since then, the District Administration has come to depend a lot on the NIC District Centre for ensuring smooth administration.

### Accomplishments

Ever since its establishment, the NIC Jhunjhunu District Unit has been involved in various computerization projects. Some of the highlights include:

#### **Land Records Management**

The Land Records project was sanctioned in third phase (1996-97) for district Jhunjhunu. The Land Records Management System helps the District Administration in maintaining and updating the land records properly and accurately. It also helps in the retrievel of land record information in the desired format for decision making. The progress of the Project is reviewed by the State Chief Secretary from time to time.

#### **Grievances Monitoring**

The GRECOMS (Grievances Redressal Computer Monitoring system) developed by NIC Jhunjhunu District Unit is functioning since January 1999. The grievances received from the public is marked by the District Collector to the concerned department, the data entry regarding the complaint is then done on the computer by the dealing clerk and sent to the concerned department with a covering letter generated by computer. If no reply is received from the concerned department within 15 days, a reminder letter is automatically issued by the computer. In case a reply is still not received, a final reminder after 7 days of first reminder is issued by the computer and the Department is asked to send reply within 5 days.

A weekly pending report is put up to the collector to contact the concerned officers. Replies received on a daily basis are fed into the computer and the reply received reports generated by computer are putup to the collector for final disposal. The success stories of this software have also been published in many State level News Papers to generate awareness and motivation amongst the public.

On the same pattern as GRECOMS, Newspaper Grievances Monitoring System (for redressal of Grievances published in newspapers) and Sainik Grievances Monitoring System (for redressal of the grievances of a large number of defence personnel in Jhunjhunu) have also been developed and implemented by the District Unit.

The various Grievance Monitoring Systems have been demonstrated to the Chief Secretary of the State Sh. Inderjeet Khanna IAS, who has been highly appreciative of the efforts of the NIC Unit.

#### Other Activities

The other important activities carried out by the NIC Jhunjhunu District Unit include:

Assisting the District Authorities in the Polling and Result processing during all types of

Elections i.e Lok Sabha, Assembly Elections, Nagar Palika, Panchayat Samiti, Zila Parishad and Panchayati Raj Elections since 1990-91.

- Computerization of State and District level Schemes for Small Savings since 1989-90 & onwards.
- © Computerization of Ledgers, Year end closing Balance, Loans and claims with regards to the General Provident Fund etc. of the Govt Employees (more than 20,000 in number) since 1987-88 onwards.
- Development of the Treasury Computerization System to generate regular reports to be submitted to the Auditor General.
- Development and Implementation of Payroll System for over 15 Govt Departments in the District.
- Development and implementation of PUC monitoring system for the Collectorate. The system helps the District Administration in properly following up and disposing of the PUC so that no papers are left as pending in the process.
- Providing E-mail connectivity and training to the Officers of various Govt Departments in the District.

Apart from the above, some other Applications developed and implemented by the NIC Jhunjhunu District Centre include the Arms Licensing System, , Community Needs Assessment Approach (CNAA), Targetted Public Distribution Information System (TPDS), Teachers' Recruitment System, Gram Sevak Recruitment System, District Industry Computerization System, Cattle Census, Population Census compuetrization, Old Age Pension Monitoring System etc.

When the District Administration awarded Mr.Prem Prakash, DIO, NIC and Mr.Narendra Singh, DIA, NIC, for their distinguished service it was but an expression of the total faith of the Jhunjhunu District in the informatics culture.



Sh.Prem Prakash, DIO, Jhunjhunu receving an award from Dr.Jitendra Singh, Minister, Higher Education



Sh. Narinder Singh, DIA Jhunjhunu, being felicitated by Sh. Sudhansh Pant IAS, District Collector and DM Jhunjhunu