Interview with Shri A.K.K. Meena, IAS

Smart Card Based Projects in Government

Citizen Centric e-Services in Jharkhand

Aspect Oriented Programming

ICT Initiatives in Zunheboto

LEAD STORY

e-Procurement

Editorial

National Informatics Centre (NIC) has developed a landmark software solution namely, Government e-Procurement System of NIC **(GePNIC)** for facilitating electronic procurement in the Government at various levels from Centre to State. Software solution developed by our **NIC Tamil Nadu** unit is being increasingly used by various Central & State government departments. The initiative has not only improved efficiency and transparency in tendering process but also made sure that vendor and contractor management schedules are well managed. We bring you the details of GePNIC in our lead story.

How ICT is leveraged by our state Governments for better governance in the tribal state of **Jharkhand** and in **Goa**, the ultimate tourist destination of India is the focus of our States Section. ICT initiatives in **Udham Singh Nagar** (Uttarakhand), **Pali** (Rajasthan), **Zunheboto** (Nagaland) have been highlighted in the 'District Informatics' section of this issue.

In Guest Column, **Sh. A.K.K.Meena**, IAS, Commissioner cum Secretary, Food & Civil Supplies, Govt. of Orissa tells us, how the revolutionary e-Gov initiative **'Krushak Samrudhi'** has changed the livelihood of the farmers at Sonepur District, Orissa.

In the "Perspective' section, **Dr. Mahesh Chandra**, Deputy Director General, NIC talks about the various Indian Based **Smart Card Based Projects** undertaken by NIC and how it has been instrumental in providing better e-Governance in India.

All our regular sections viz., E-Gov Products and Service, Technology Update, International e-Gov Updates, Cyber Governance, In the News, etc. are full of information about classic initiatives taken under the ambit of e-Governance.

We look forward for your valuable views to help us enhance the publication further & **make it more valuable** for you.

Enjoy Reading…

We would like you to contribute to Informatics. You can send your contributions to our State Correspondents or can also send directly to us at the following address.

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Contents

Procurement is the complete process of acquisition of goods, works or services at the best possible total cost, in the right quality and quantity, at the right time, in the right place and from the right source for the direct benefit or use of Corporations, Individuals, or Governments. In its most basic form, procurement is nothing more than the steps that are used in the acquisition of Goods, works and Services. Whether for business or for the home, there are progressive steps that we all follow as we work towards procuring those items that we desire.

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Government e-Procurement System of NIC

PROCUREMENT is one of the important functions in all Government departments, where large amount of funds are spent towards floating and processing various types of tenders covering Goods, Works and Services across the country. e-Procurement is the process by which the physical tendering activity is carried out using internet and associated technologies in a faster and secure environment. e-Procurement facilitates the user, simplicity of use and improves efficiency without compromising on the required procedures of the organization. Government e-Procurement System of NIC (GepNIC) has been built using Open Source tools and Standards which adheres to industry standard best practices and technologies. It also provides for greater transparency, saving time and money through shortening of procurement cycle time and facilitates ease of operations for the implementing organization as well as the bidder community. In view of its importance, Government of India has identified e-Procurement as one of the Mission Mode Projects (MMP) under the National e-Governance Plan (NeGP).

■ The first step in the process of procurement is the need or wants for a particular good or service.

■ Then it is important to qualify the specifics of what will lead to satisfaction.

■ Next step involves the evaluation of potential suppliers. This will involve getting to know more about vendors who can offer Goods, Works or Services that will meet all the specifications, including the price range. This may involve taking bids on a project, negotiating prices, or accepting proposals. Over a period of time, one or two or more suppliers are likely to stand out from all other vendors. Once the final decision is made between the remaining suppliers, the time has arrived to move on to the final stage of the procurement process.

■ The last step involves accepting the desired Good, Works or Service, ensuring that the item is in compliance with all the claims made by the supplier, and rendering payment according to the terms worked out with the supplier. In some cases, it may be possible to engage in the acquisition of Goods, Works or Services prior to supplying payment. At other times, payment may be necessary before taking possession. With both scenarios, the consumer usually has a short period where it is possible to reverse the acquisition and move on to another option. One of the basic rules of procurement is that in the end, it is important to think in terms of the total

cost of ownership. This includes not only the purchase price, but also time and resources that are expended in the pursuit of the ownership. By understanding the steps involved in the procurement process, it is possible to get a better understanding of the real cost involved for obtaining any Goods, Works or Service.

BACKGROUND

National Informatics Centre (NIC) has developed e-Procurement software solution namely, GePNIC as a product for electronic procurement in the Government. The development of the application started in July 2007 and the first e-Bid Submission took place in November 2007 from Tamil Nadu State Government. Orissa State Government showed keen interest in the solution. The e-Procurement solution was made operational in the Government of Orissa from March 2008 onwards. An eProcurement mission team was setup by Orissa Government fully dedicated to look into the roll-out aspects for the various departments in the State. Extensive training to Government officials as

Screenshot of the GePNIC system

well as bidders were carried out.

CURRENT IMPLEMENTATIONS

After the successful implementations in Tamil Nadu and Orissa, Other Government Departments in the States including West Bengal, Haryana, Uttar Pradesh, Chandigarh

Pictorial representation of the GePNIC system functionality

UT, Jharkhand, PWD Punjab and other Public Sector Organizations, like Mahanadi Coalfields Limited (MCL) Orissa, and Visakhapatnam Port Trust have implemented this solution. At the Central Government level, GepNIC has been implemented for procurements under Pradhan Mantri Gramin Sadak Yojana (PMGSY) scheme of Ministry of Rural Development in 21 states, covering some of the North Eastern States. Using the GePNIC solution, around 52080 tenders, worth over 85089 Crores, have been published successfully till 28th Feb 2011 across the States and Organisations indicated.

ABOUT THE SOLUTION

The GePNIC solution is generic in nature and can easily be adopted for all kinds of procurement needs such as Goods, Services and Works, by all Government offices in the country. It aims at transparency and non discrimination amongst bidders, by allowing free access to tender documents, clarifications. It also enables secure on line bid submission and access to bid opening event to all concerned, from any place on 24 x 7 basis, using the GePNIC system through Internet. The

Dr. Y. K. Sharma,
Deputy Director
General, NIC

Procurement is one of the major activities in the government. Application of ICT to the process of procurement is expected to go a long way in making this key aspect of the functioning of government highly transparent and efficient. The e-Procurement solution developed by NIC (named as GePNIC) has, over the last 3 years, received tremendous support from state governments. Beginning with initial induction in Tamil Nadu and Orissa, this solution has now been deployed in 21 states. PMGSY has become the largest national scheme to go full-fledged in e-Procurement mode across the country. As of March 2011, 54134 tenders of aggregated value of Rs. 86937 crores have been processed using GePNIC. With a view to facilitate quick deployment of e-Procurement by various Departments/ organizations of the government, GePNIC has been deployed as a hosted service so that user organizations do not have to worry about technology and infrastructure aspects of using this service. NIC recognizes that the success of e-Procurement depends not only on internal preparedness of the government but equally on the Bidders community. Extensive training of bidders is therefore an integral part of implementation of e-Procutrement. State level support structure and a national Help Desk service have been created to ensure help is available to users whenever they need support in using the system. The lead story in Informatics on this key service, I hope will help create more awareness about this important service in the government.

system has been designed taking into account of the tender rules followed in various states and also the periodic guidelines issued from Central Vigilance Commission (CVC) on e-Procurement. Major functionalities are:

- Registration/Enrollment of Government officials (in various roles) and Bidders
- Tender Creatio and Publishing (Multiple Packets)
- Publishing of Corrigendum
- Publishing of Pre bid meeting decisions / documents
- Online Bid submission/ resubmission/withdrawal as per the needs (configurable),
- Facility for offline/ online payment (Payment Gateway) of Tender Fee and EMD
- Encryption of bids submitted by the bidders
- Facility for single/two/multi cover bid system
- Online tender opening by designated Officials
- Live bid opening for the bidders
- Facility to update committee recommendations at each stage of tender process
- Award of the contract
- eAuction - Forward and Reverse
- Limited Tender/Expression of Interest(EOI)
- General Technical Evaluation
- Multi currency provision
- Digital signing of all documents which are uploaded
- Comprehensive Report/MIS module

The solution can be configured for use by an organization at its apex level, and at multiple subordinate levels, at which tenders could be independently floated. Bidder categories/ classes are also configurable.

TENDER STATUS - VIEW FROM HOME PAGE

Tender Status is the window to the outside world which informs the various stages of tenders at any given point of time. The information facilitates any public, bidder and academicians to know the various tender related activities that are undertaken and awarded at various points of time. A sample screen shot showing the tender status is displayed below: Detailed information can be seen by clicking on the view button against each stage.

Salient features

- Enhanced Transparency
- Two factor authentication
- Adherence to IT ACT 2000
- Adhering to Guidelines of Asian Development Bank, Central Vigilance Commission procurement rules & World Bank guidelines
- Accessibility of Information at all stages to all parties from any place on 24 x 7 basis
- Secured storage of Data
- User Friendly Software
- Security Audited by two agencies.

SECURITY ASPECTS

The solution has strong in-built security features including two-factor Authentication with Digital Signature Certificates (DSCs) as per IT Act, Usage of SSL, Role-based User Access and Bid-encryption at Client end, using PKI technologies. The solution has been security audited by two independent agencies. The security is implemented in both, at the level of content and payments. The following security features are built in as an integral part of the GePNIC system.

- Usage of legally valid class of Digital Signature Certificate as per IT Act 2000 for authentication and non repudiation at all levels, by all users interacting with the system

- Time stamping of all critical events
- 128 bit encryption with SSL security
- Access to sensitive contents such as price bid based solely on authorization
- Roles/Privileges allocation are such that, it ensures only authorized personnel to perform the assigned tasks
- Complete compliance to the IT Act 2000 for legal sanctity
- Security Audit certificate from the CERT-IN recommended certified auditors
- Encryption of the password of the users and the Bid submitted by bidders and other sensitive fields.
- Two factor authentication with Digital Signatures
- Bid Encryption at Client System
- Multiple Bid Openers need to be configured. Minimum two and a Maximum of three Bid Openers.
- Audit trail of each activity
- Replication of data & backup facility

AUDIT LOG

The GepNIC system has been built in with comprehensive audit log facility for detailed auditing on all the transactions that are taking place. The audit logs are maintained in a secured and tamper proof environment with provision to provide the details to an authorized user for auditing purposes.

DIGITAL SIGNATURE CERTIFICATES (DSC)

The Digital Signature Certificate is an integral part of the entire e-Procurement process. DSC's are to be used by both the Government Officials as well as the Bidders to ensure the security of the transaction, authentication of the users of the system and the digital signing of the documents published in the e-Procurement site at various points of time. DSC's are legal requirements under the Indian IT Act 2000 .Department Officials are required to use dual key pair of the certificates and the bidders should use single pair of certificates.

GePNIC supports multivendor DSC's/eTokens provided by various agencies such as NICCA, TCS, SIFY, nCode, eMudhra etc. GePNIC is the first application in NIC, which has used DSC in the system, as per the IT Act 2000.

APPROACH FOR IMPLEMENTING GEPNIC AS A MISSION MODE PROJECT

The project encompasses to enable the following elements for quick and successful roll out within the Mission mode project (MMP) framework: -

- Creation & operationalization of Back-end Server infrastructure and Disaster Recovery infrastructure at the respective NIC/ NICSI Data centers (States & Central) and their sustained operations/ usage, including maintenance and manpower etc.
- The customization of the GePNIC software, and its operationalization for the intending State Government Departments, including the software maintenance and developmental activities for application enhancements, as required.
- Creation and operation of a 24x7 Helpdesk, for phone/email support to GePNIC users of each Government Department and its suppliers, and
- Initial, as well as, continuous Training and Handholding support,

to the identified department users, as per the needs at defined levels.

TECHNOLOGY

The System has been developed using Open Source Tools and the following components are used.

- Operating System - Linux
- Web Server - Apache Tomcat
- DataBase - PostgreSql
- Front End - Java/J2EE

BENEFITS OF IMPLEMENTING GEPNIC SYSTEM:

- Fast and efficient process, reduces the procurement cycle time.
- Introduces transparency at each stage. The system captures the justification and comments of Approving Authorities at each stage and thereby enables Approving Authorities associated with the transaction to justify their decisions.
- Encryption ensures integrity of the bids submitted.
- Promotes Open Competition
- Reduction in the cost of doing business for the suppliers which in turn will reduce the prices quoted by the bidders.
- Retendering has come down.
- It is observed that, the number of Legal Issues relating to tenders have come down because of the enhanced transparency in the system.

Bidder login dashboard

BENEFITS TO BIDDERS

- Zero Cost to Bidders, No Per-Bid Charges, No registration charges.
- Eliminates requirement for submission of bulky and multiple copies of bid in paper form.
- 24 x 7 access enables the bidder to submit bid documents and view the tender status from anywhere
- Provision to modify the bid documents till bid closing time
- After the bid submission, the bidder can track the status of submitted bids online
- Information on all tenders is available at one place to the suppliers
- Cuts down unnecessary trips to collect details on the tenders published
- Increased reach as the bidder has access to the tenders of all the departments
- The system inspires confidence among the bidder community as being fair and transparent

ROLL OUT MODEL

NIC has standing arrangements through NICSI to facilitate the implementation/ rollout of the GePNIC solution, including domain specific 3rd party agencies to act as Facility Management Partners and provide manpower support for handholding, training and toll free Helpdesk facilities as per the needs of user department, on payment of suitable charges. Continuous training is conducted by FMP personnel to the user department. NIC provides technical support on a continuous basis, as required by the user departments.

The Involvement of all the implementing organisations and the support from the Local NIC including the District Level Officers resulted in successful roll out of this project till now.

COMMON MANAGED SERVICES

It is also proposed to roll out the application as a managed (SAAS) service where in a user department shall start using the Generic application with very minimal or without changes from day one.

FUTURE PLANS - MMP

In view of the obvious perceived gains, Government of India has been envisaging early and fast adoption of the e-Procurement, in different Government departments and offices both at Central and State levels, through the Mission Mode Project (MMP) on e-Procurement. The same is being pursued by the Ministry of Commerce, with the help of the Dept. of Information Technology at the Centre.

Ministry of Commerce (MoC) has decided towards wider adoption of e-Procurement quickly in selected willing Government Departments of State Governments, being facilitated centrally through a dedicated mission mode project in this regard. This will facilitate the replication of the generic GePNIC solution, to different departments of any willing State Government with no initial set up cost for servers and related expenditure. This would facilitate the quick roll out of the e-Procurement system across the country, in the Government domain, within a short span of time.

Awards and Recognitions

GePNIC has bagged CII award for MCL eTenders in March 2011, Skoch-Challenger Award 2010, G2B Initiative of the year 2009 - eIndia Award, India-Tech Excellence Award - 2009 for the Orissa Implementation.

The team from Asian Development Bank (ADB) and World Bank (WB), have gone through the GePNIC System fully and certified its compliance as per their guidelines for adaptability by the States as applicable.

e-Mamta: Name based Mother and Child Tracking System in Gujarat

As a major initiative, the Health and Family Welfare Department of the Government of Gujarat, has introduced a name based mother & child tracking information management system called "e-Mamta", in collaboration with NIC, Gujarat. One of the first of its kind, the system has been conceptualized and developed by NIC Gujarat and GoI has decided to replicate in all the other states of India.

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Edited by **Vivek Verma**

REDUCTION of Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) are the important public health challenges for India. Tracking of health service delivery at the individual level of children and pregnant women has been recognized as a priority area for providing effective Healthcare services to this group. This would help in knowing the left outs in essential programs like immunization, anemia, malnutrition etc, who can then be reached. This would also help the health workers in organizing their work properly through monthly work plans. Through SMS messages, beneficiaries can be reached directly and reminded of the services due to them. This in turn can have a large impact on reducing IMR and MMR.

OBJECTIVES

- To provide comprehensive and quality Maternal and Child servic es
- Real time reports and better analysis
- Interdepartmental coordination
- Efficient stock management
- Intra-departmental communication
- Aims towards realizing priority issues in Health, which are laid in the Millennium development goals, Swarnim Gujarat goals and the goals of NRHM i.e. reducing the MMR, IMR and the Total Fertility Rate (TFR).

Project Description

e-Mamta (http://e-mamta.guj.nic.in/) is a web based application developed in .Net technology with MS SQL 2005 database server as backend. It uses Unicode compliant Gujarati fonts for local language interface and SQL Reporting server for dissemination of data. The system covers the entire population of Gujarat with special emphasis on rural, urban slum and slum like population.

The system aims at registering individual pregnant mothers, individual children in the age group 0-6 and adolescents along with their full details to ensure complete service delivery of Ante Natal Care(ANC), Child birth, Post Natal Care(PNC), Immunization, nutrition and adolescent services and to track the left outs of these services. Through work plans, a unique concept introduced for the first time in Public Health, the left outs of maternal and child services are tracked. It also provides a management tool to the service providers at the grass root level to determine the potential recipients of the services along with their details, through comprehensive work Plans. Finally, the services are aggregated to generate Reports that are reliable and valid.

Advantages

- Complete life cycle approach i.e. Data of an individual is recorded from Birth to Death.
- Resolves the migration/transfer issues in service delivery through provision of Unique Id to individuals.
- No duplication of registration of mothers. With an Individual as unit, all pregnancies of a single

National level workshop on e-Mamta at Bhopal in July 2010

mother are recorded together.

- SMS alerts to beneficiaries and service providers for services that are due.
- Integration with the HMIS (Health Management Information System) and automatic generation of various reports & registers through aggregation.
- Search on several parameters like Name, village name, Ration card number, mobile number, Health Id, Family Id, RSBY card number, BPL card number, UID.
- Records & details of various incentives paid to all cadres of health workers. Individual records for the benefit of JSY, BSY and CY schemes.
- Dash Board to give a brief overview of Data entry, Deliveries, Immunization services, Maternal and Infant deaths. Detail analysis of data.
- Citizen centric features like Online Immunization Records, Child Growth Charts, Pregnant woman Hb./Wt. chart etc.
- 24*7 availability as it is accessible over internet
- Unique Id (Aadhar) compatible.

Status

Currently, record of 88 lakh families covering 4.5 crore individuals which is roughly 80% of population has been captured. It includes 7.33 lakh pregnant women, 9.2 lakh children in the age group 0-6 years and is targeted to monitor 13 lakh births annually.

The application developed in January 2010 has been implemented all over Gujarat State. Government of India has appreciated and announced National replication of the software, which is underway and training to 20 states has already been provided. The source code of MCTS application (e-mamta with limited functionalities) was handed over to all NIC state health coordinators and NIC Delhi health division for further customization at their level.

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JAY NARAYAN VYAS
Health and Family Welfare Minister, Gujarat

I congratulate the members of Team Health Gujarat who have been working on the e-Mamta Software for the last one year being developed by NIC, Gujarat. Gujarat is the first State to put in place a system whereby the name based tracking of mother and child for drop out and left out of regular maternal and child health services. I am also happy to note that 98% data entry of families in rural areas is been completed and pregnant and child registration has also under progress.
I wish the e-Mamta Team all success.

ANJU SHARMA
IAS, Mission Director State Rural Health Mission, Gujarat

To reduce IMR and MMR e-Mamta provides a platform through which service providers can proactively seek the mothers through SMS ALERTS and work plans. It is one application that provides a complete continuum of service ranging from pregnancy care to Adolescent Health and Child nutrition.

Harsamadhan: Building Citizen Confidence through Transparency

The prime focus of government is timely and effective redressal of public grievances, which leads to citizen satisfaction and credibility of government in Public Delivery systems. With this in mind, the Department of Administrative Reforms & Public Grievances, Government of India in technical collaboration with NIC Headquarters, has come up with an initiative "Centralized Public Grievance Redress And Monitoring System (CPGRAMS)" in most of the central ministries.

Sh. Bhupinder Singh Hooda, Hon'ble CM Haryana launching Harsamadhan along with Sh. R.C.Misra, Secretary DARPG GoI and Smt. Urvashi Gulati, Chief Secretary Haryana

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Edited by **Vivek Verma**

TO extend the benefits of a standardized and well established system of grievance redressal to state governments, Haryana was selected as pilot state. It started with the study of state level requirements and subsequently customization of CPRGAMS was done. NIC Haryana did the detailed study at state headquarters, a few departments and District Panchkula and the inputs were given to the NIC-DARPG team for development / customization of the solution. The customized solution for Haryana was named as "Harsamadhan", which means Har - Everyone and samadhan - Solution.

OBJECTIVES

Launched on 18th June 2010 by Hon'ble Chief Minister of Haryana Sh. Bhupinder Singh Hooda, the CM stressed that the redressal of residents' grievances was the priority of the state government and hoped that the user-friendly new portal would help residents get their grievances redressed quickly.

Harsamadhan is designed and developed with a view to achieve a uniform and systematic approach towards monitoring. It is an endeavor of the Haryana Government for fast Samadhan (Redress) of every kind of citizen's grievances with a vision of pursuing excellence in e-Governance. This project is implemented by Government of Haryana in Technical Collaboration with NIC Haryana State Unit.

Strategy Adopted for Implementation

Intensive training sessions were conducted before the launch of the portal, for all level of officers who were to use the application. A technical session was held for all financial Commissioners and few Deputy Commissioners to make them aware

of the workflow of the system. User manual and guidelines for the implementation were also made available. Hierarchy was created for users at senior level and user ids with password and guidelines were sent to all departments by post and through e-mail.

In order to effectively manage the grievances submitted by the citizens and for smooth operations of the portal, Deputy Principal Secretary to Chief Minister was designated as State Nodal Officer in Chief Minister's Secretariat. One nodal officer has been designated in each department/ District.

ROLES AND RESPONSIBILITIES

Responsibilities of State nodal officer/Central grievances cell:

- To liaison with all government offices
- Intimate various departments, District administration and field offices on any new developments, addition/deletion of features in the portal
- Under Secretary (grievance cell) would look into the mails received and would reply to them. All technical issues would be taken up with NIC Project coordinator
- The Central Grievance cell would also ensure to upload all grievances received manually/by post in the central grievances cell

Responsibilities of line departments:

- Directly responsible for management of the grievances related to the portal
- Create hierarchy and user accounts of all officers
- Ensure uploading of all grievances received manually or through post
- View all the Grievances and forward them to Subordinate organizations/officers

Responsibilities of NIC:

- Technical ownership of Harsamadhan Portal
- Design, re-design, hosting and technical maintenance of the Portal
- Provisioning of requisite resources at NIC Haryana state data centre to host the portal
- Provide training to all government departments on operations of Harsamadhan
- Maintenance of the web and data base servers on which the portal is operational
- To ensure 24X7 availability of the portal.

TECHNOLOGY USED & SECURITY POLICY

The complete application has been developed in an open source Web development platform using LAPP stack. LAPP uses Linux as the operating system, Apache as the Web server, PostGreSQL as the RDBMS, and PHP as the object-oriented scripting language. The application is hosted in NIC Haryana State Data Centre, which is well equipped with all necessary resources required to enforce security.

BENEFITS TO CITIZENS

The main stakeholders of this system are the citizens and all the departments of Haryana Government.

- **Single Channel -** Harsamadhan is designed in such a way that the grievances are channelised into one cohesive system with a Unique Grievance Tracking Number.
- **Easy to use -** Allows online registration of grievances in bilingual mode.
- **Quick feedback -** A Unique Registration Number is generated on submission of the grievance. Any supporting information for effective grievance redressal is immediately asked for.
- **Monitoring by Senior Officers-** Status of Action taken at subordinate level is automatically accessible to senior officers.

BENEFITS TO GOVERNMENT DEPARTMENTS

- **Easy to use-** Information from citizens is collected in a standard format. Easy search and filtering

mechanism allows one to access the relevant information quickly.

- **Easy Monitoring-** Facility to monitor the progress of grievance redressed by subordinate officers. Facility to send reminder to subordinate offices. Facility for reviewing action taken report of subordinate office before final disposal of the grievance.
- **Saves time and efforts -** The workflow based processes saving of time and efforts
- **Detailed MIS reporting -** Comprehensive reports are available for each department and consolidated reports for higher levels.
- **Data security -** Web-based architecture of the application ensures data security at the central level.

IMPLEMENTATION STATUS

Harsamadhan is already up and running in the entire state covering Chief Minister's Office, Chief Secretary's Office, Grievances Cell, all the departmental head offices and all the 21 districts of the state. Grievances are either examined at Nodal officer level or are forwarded to concerned officials. So far 6586 grievances have been registered and 652 users are using it.

REPLICATION IN OTHER STATES

After successful implementation of this initiative in Haryana, DARPG has been encouraging other states to adopt this system which would require a little state specific customization. The system was replicated in Odhisa state on 31st July, 2010. Currently, the work of replicating it in Punjab and Rajasthan is in progress.

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HP Legislative Assembly: Embracing Information Technology in Her Strides

Himachal Pradesh Vidhan Sabha is housed in the Historical Council Chamber Building, which was built by the Britishers for the Central Legislative Assembly. Lord Reading, the then Viceroy of India inaugurated it, on August 27, 1925. Legendary Vithalbhai Patel was the first elected President (or Speaker) of the Central Legislative Assembly. On January 25, 1971, when HP made its debut as the 18th State of the Union of India, Council Chamber was chosen to house the HP Vidhan Sabha.

Hon'ble CM, HP Sh. Prem Kumar Bhumal inaugurating the launch of Verbatim House Proceedings on Assembly Website

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NIC Centre was set up at HP Vidhan Sabha in June, 1996 with an aim to computerize various activities of Legislative Assembly Secretariat. State of the art infrastructure has been installed in various Branches/Sections of the Assembly Secretariat which are connected over LAN. Also PC's and Laser Printers have been provided to all the sitting Members of Legislative Assembly.

PROJECTS/ACTIVITIES

HP Vidhan Sabha Website: HP Vidhan Sabha website http://hpvidhansabha.nic.in is a rich source of information covering History, Who's-Who, Election Results, Party Position, Constituency Map, Amenities provided to MLA's/Ex-MLA's, Searchable catalogue of books in Assembly Library, Verbatim House Proceedings, Bills introduced/ passed since 1952, List of Business, Assembly Questions, Corrigenda, Assembly wise list of Members, Gazette Notifications etc.

ePMIS: A web based application developed by NIC HP State Unit to manage the Service Records of the employees has been implemented at the Assembly Secretariat.

eSalary: In order to generate Salary bills, Schedules etc. a web based centralized salary application developed by NIC HP State Centre has been implemented at HP Vidhan Sabha Secretariat.

Verbatim House Proceedings: A solution to merge the Verbatim House Proceedings prepared by Assembly Reporters has been developed and implemented. These proceedings are then published on the Vidhan Sabha website.

Accounts Management Information System

Integrated software for various activities of the Accounts Branch has been developed and implemented. The salient features of the software are:

- Allows feeding details of all type of bills i.e. TA, Medical and Contingency etc
- Generates HPTR 5 of bills for submission to Government Treasury
- Generates authority letters for encashment of bills of MLA's and HP Vidhan Sabha staff .
- Generates reports for monitoring the expenditure. It also generates Monthly and Quarterly Expenditure Statements under various Account Heads
- Generates bill register to ensure accuracy, speed and maintains efficiency in maintaining bills.
- Calculates Members' Salary for a particular month and generates the Salary Bill and Various Recovery Schedules for submission to Treasury.
- Generates Nominal Rolls (in respect of Speaker / Deputy Speaker and Vidhan Sabha Staff, Members') for preparing the Budget Estimates for next financial year

Gate Pass Issuance System: During Assembly Sessions large number of officers / officials from Govt. departments visits Vidhan Sabha. Different types of passes with Color scheme are prepared indicating the permission to visit the various sections of HP Vidhan Sabha premises.

Loan Recovery Monitoring Software: This software manages the House Building and Motor Car advances sanctioned and disbursed to Members of the Legislative Assembly. It generates the statement showing principal and interest due and paid by a particular member.

e-Granthalya: A standard package developed by NIC, Karnataka has been implemented to computerize various operations of Dr. Y.S. Parmar, HP Vidhan Sabha Library. Maintenance, subscription of Periodicals/ Newspapers, generation of supply orders for purchase of new books, generation accession register/catalog cards, maintain issue/receipt /renewal of books and search books using a number of criteria are some of the features of this software. In a nutshell, all the operations in a typical library can be performed using this software.

MISCELLANEOUS ACTIVITIES

Support to Vidhan Sabha Secretariat: Winter Session of the Assembly is held every year at newly constructed Assembly complex at Tapovan, District Kangra (HP). Complete IT support is provided by the NIC, HP Vidhan Sabha by shifting the hardware to Dharamsala and constructing a makeshift LAN at Tapovan for smooth functioning of the Assembly Secretariat.

Assembly Business / Committee Reports: In addition to above, NIC, HP Vidhan Sabha is providing complete support to Vidhan Sabha Secretariat in the field of IT whether hardware/ software acquisition, help in AMC, solving day to day problems of users, managing LAN setup in the Vidhan Sabha Secretariat, coordinating Training Programmes etc. Additionally, help is also provided to Members of the Legislative Assembly mitigating their computer related problems.

ROAD AHEAD

- To publish rules of Procedure / Directions from the chair on HP Vidhan Sabha website
- A single comprehensive web based

Sh. GOVERDHAN SINGH
Secretary, HP Legislative Assembly

In the past decade IT has pervaded the Government setup, Legislature is no exception to it. Information Technology has radically changed the way our Government establishments function. At Himachal Pradesh Legislative Assembly, NIC has played a pivotal role in improvising our business processes by developing and implementing solutions custom tailored to meet our requirements. These changes have increased efficiency, made the information much more accessible, and boosted the level of communication with citizens.

application (eAssembly) to manage all the aspects related to Assembly and its Members is under development.

- A bi-annual journal, Vidhanmala published by HP Vidhan Sabha would also be made available on the website
- Efforts will be made to establish Video Conferencing, dedicated email and Internet facilities in the Assembly Secretariat.

For further information

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Jharkhand : Rolling Out Citizen Centric e-Services in Major Sectors

Renewing its effort towards utilizing ICT for the benefit of citizens, the government of Jharkhand had earned admiration from all sections of the society, for its determination to bring efficiency, transparency & accountability in day to day governance. The launch of various e-services in association with NIC and at the same time utilizing the expertise of NICSI to strengthen ICT infrastructure in various departments has hastened the launch of these services without cost overrun and adhering to timelines in overall project execution.
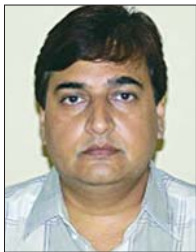
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WITH the implementation of State Wide Area Network (JharNet) by the state government, the last mile connectivity was achieved which created a seamless backbone up to the block level from the state capital, facilitating video conferencing, IP telephony and Data center based services. NIC Jharkhand is instrumental in enhancing various ICT initiatives of the state government, which has created a solid foundation for e-governance in the state having more than one forth of tribal population.

NIC has augmented the efforts in providing e-services and has emerged as a major IT solution provider to the state government. Services like e -Nagrik Seva, provides certificates (caste, residential, income etc) at the door step to the people even in remote and rural areas, e-Procurement has reduced the government procurement time with transparency and convenience to the bidders, e-Registration / e-Return and e-Payment has come as a surprise to the business community apart from increasing government revenue manifolds.

NIC Jharkhand Data Centre

NIC established a state of art "Data & Network Centre "(iNOC) with terabyte of storage space and high speed communication link. Storage Area Network (SAN) is a network of storage devices like hard disks, backup tapes and other devices. It uses fiber channel for faster and reliable data storage / retrieval. Automatic tape backup system with tape library adds to the security/reliability of data storage.

The infrastructure provides -
- Hosting facility under Linux and Windows platform
- Apache / Tomcat webserver
- IIS with .Net Support
- Oracle 10g and MySQL database support
- Zope / Plone content management

Data Storage & Hosting Services -
- Website of all districts of the state
- e-Nagrik Seva Software
- Court Case Monitoring system
- BPL data for the state
- Centralised Information system for Transport Department
- Public Grievance & Redressal System
- Electoral Information System
- Intrajhr portal for NIC Jharkhand

NIC Jharkhand Data Centre housed at Ranchi

e-Procurement: Online Tender System

e-Procurement system of NIC was first started in PMGSY scheme under Jharkhand State Rural Road

To bring transparency, efficiency, reduce tender cycle time and provide equal opportunity in the procurement process, the Jharkhand government took a landmark decision by launching the Government e-Procurement System of NIC (GePNIC) - http://jharkhandtenders.gov.in on 17th Dec' 2010 at Ranchi. Speaking on the occasion the Chief Minister, Sh. Arjun Munda said in front of the distinguished gathering that his government is committed towards complete transparency in the bidding process and all the departments of the government will join the online system by the end of this financial year.

MODULES	FEATURES
Enrolment	Two Factor Authentication
Tender Publishing	Online bid submission
Corrigendum publishing	Automated notification
Pre- bid meeting details	Facility for payment gateway Interface
Bid Submission	Secured Transaction using DSCs
Bid opening	Separate storage for bidders
Bid evaluation	User Friendly Operations
Award of contract	

jharkhandtenders.gov.in

Development Agency(JSRRDA). Emboldened by its success the system was extended to nine major state government departments but at present it covers all of them. The system brings better accountability, increased authenticity, confidentiality and enhanced availability during the procurement activities. GePNIC can easily be adopted for all kinds of procurement namely works, goods & services in the government offices. It has following modules and features

The system is highly secure with following features:
- SSL authentication
- Role based Access
- Adheres to ADB, Worl bank CVC

guidelines & Tender Transparency Act
- Secured Encryption Technology
- Secured Bid submission using DSC / e-Token
  - Security Compliance as per IT Act 2000
  - Security Audited by three Certified Auditors

The system has proven advantageous to bidders evident with less paper work, hassle free operation and data updated in real time. Bids can be su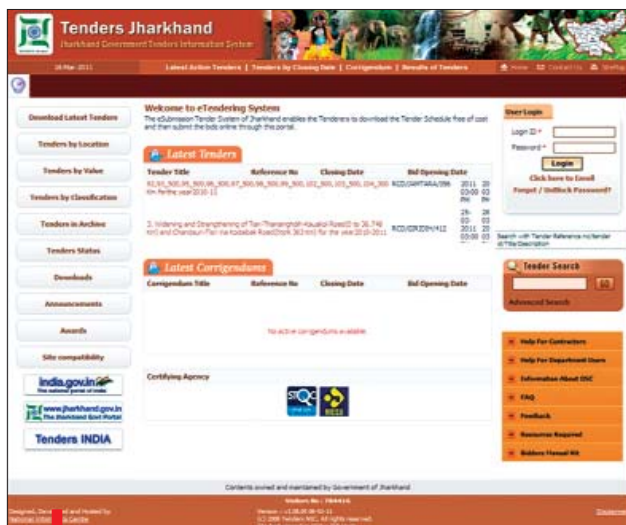bmitted from anywhere anytime and downloading of tender documents is easy. Bid documents are digitally signed and encrypted. The system facilitates finalizing tenders at much lower cost with reduced tender cycle time and has reduced vigilance cases.

e-Nagrik Sewa : Online Issue of Certificates

The first e-Nagrik Sewa Kendra was inaugurated at the block HQ in the Dhanbad district. NIC developed a web based solution for providing G2C services from the Kendra or through Citizen Service Centres (CSC's) which has been opened throughout the

state. The web interface (http://www.jhr.nic.in/csc) presents a Citizen and a Government interface. The e-Nagrik Sewa, facilitates submission of application forms by the citizens for issue of certificates like Caste, Birth, Death, Residential and Income. The citizen interface provides for the submission, tracking and monitoring of applications along with the facility to download forms and guidelines issued by the government from time to time. The Government interface provides for updating the status of the applications submitted and generates the Certificates using the utility link.

Earlier a citizen has to repeatedly travel down to the concerned government offices to apply for the certificate. After the application is submitted he had to repeatedly visit the office not only to comply with requisite documents but to also know the status of

A demonstration of the e-Nagrik Sewa Software

his application without knowing actually when the certificate will be finally delivered.

Objective

- A citizen should be able to apply for a certificate (Birth, Death, caste, Income, Residential etc) at a nearby kiosk / Pragya Kendra through appropriate information with helps and downloads existing on the web based application.
- Track the status of his application based on the acknowledgement number, received at the time of the application.
- Comply for any wanting documents as displayed on his status screen.
- Can post his grievance on the subject to the respective Deputy Commissioner.
- Should get the certificate through the Kiosk management at his door step.
- Government or any other authority should be able to verify the authenticity of the certificate on the web.
- System should provide the facility of working in the regional language (Hindi)

Systems Approach

- A web based application on .Net framework with SQLServer database was developed and hosted at the NIC Jharkhand data centre. Application level security measures e.g. secured authentication and authorization procedures, Checking of SQL & URL injections, salted Hash at the client and server ends, Checking of XSS, CSRF etc along with proper validations are incorporated.
- Optimized Hybrid approach (Computerization with critical gap filling by manual processes, wherever existing) to speed up and optimize the service delivery in the current scenario.
- Dynamic Certificate templates to meet the varying requirements of different districts.
- Document uploading facility with

the application.
- Queue discipline - To encourage the First Come First Serve approach
- Regional language interface - Application uses UNICODE technology for facilitating data maintenance in Hindi.
- Web photography of the applicant (caste certificate) at the kiosk to avoid possibility of manipulation.

Citizen Centric:

The web based system provides the interactive mechanism for service delivery. Citizen, kiosk operator, Office-in-charge and operators all can communicate online with the central data server, fetch and update the information maintaining consistency by the system.

System can be accessed at any internet point. However the application can be submitted at a nearby kiosk only. Applicant can view the status of his application viz. received, under process, Certificate ready or delivered. There is no need to travel from a remote place all along to the concerned office at the district or circle headquarter.

Process Flow :

Under PPP model a private party was entrusted with establishing "Pragya Kendras"- panchayat level kiosks at all the panchayats, approx 4600. The process flow of the system is as follows:

- A citizen can visit nearby kiosk. The

kiosk operator downloads the applications and informs him know about the required enclosures.
- The basic data is entered at the kiosk and an acknowledgement number and the money receipt, if any, is generated and handed over to the applicant.
- The application is forwarded to the concerned office. The Office-in-charge updates the status of the application as "Received".
- The process starts with verifications etc. If any shortcomings are observed, it is also updated on the web site.
- If everything is verified and processed, the operator enters the remaining data and verifies for finalization at the in-charge level.
- The in-charge then verifies and generates the certificates. The status is accordingly updated.

The citizen checks his status at a kiosk or from any internet point. He can know if any document is wanting or any discrepancy to be complied. If the certificate is ready, he visits the Kiosk for delivery.

Benefits:

Though, a nominal amount is charged by the kiosk management the applicant saves much more on time and cost than that would have occurred due to repeated travelling & harassments. Moreover not only the applica-

jharkhandcomtax.nic.in

tion can be applied nearer home but the certificate is also delivered through kiosk. He can also know the status, shortcomings etc. very easily. Applicant photograph is also taken (for caste certificate) at the kiosk, which eliminates any possible manipulation. Up to end of last month more than six lakhs certificates had been issued whereby caste, residential and income comprises around 95 percent.

e-Services - Commercial Tax Department

A major e-Governance initiative in the state was taken with the computerization of commercial tax processes. On one hand the software has improved tax compliance, reduced tax evasion while on the other has brought many new commercial establishments into the tax net. The software has increased the revenue collection several folds and has also enforced compliance of tax rules & regulations. The software designed and developed by NIC in Open source J2EE environment and Oracle 10g database using modular approach, meets the requirements of commercial tax department pertaining to VAT, is functional in all 28 Circles of the state.

e Registration : Online Registration of Dealers

Dealers register themselves on the website and create their profile giving details along with valid email id and mobile phone no. Their mobile phone no. is validated through a secret code. After successful registration they fill

Sh.Wilfred Lakra, the then Advisor to Governor inaugurating e Filing of Returns

the online application form JVAT-101. Further scrutiny and verification is done by the concerned circle and the TIN no. is allotted.

e-Return : Online Return Filing by Dealers

Dealers file their returns online after obtaining their password from the concerned circle office. After the first logon they are forced to change the initial password. Then onwards, the returns can be filed online. Government of Jharkhand has made arrangement with the CSCs (Pragya Kendras) too, for facilitating of the e-Return filing for the dealers.

e-Payment : Online Payment by Dealers

The e-Payment facilitates transfer of monthly tax amount due, directly from the Account of the Dealer or Dealer Authorized Account to the Government account. This is a simple and transparent facility which ensures online transactions on safe and secure mode.

For availing the facility of e-Payment, Internet Banking Account is mandatory for all the TIN Registered dealers.

The Registered TIN dealers or other dealers can visit to the website of the Department jharkhandcomtax.nic.in or jharkhand.gov.in for e-payment. After successful transaction the dealer gets e-receipt from the SBI site. Government of Jharkhand has nominated one of its treasuries at Ranchi as the "Cyber Treasury" to maintain all the cyber transactions. The VAT application provides the interface for posting the bank transactions to the Cyber Treasury account. Arrangements are being made for e-payment through other banks also.

For further information

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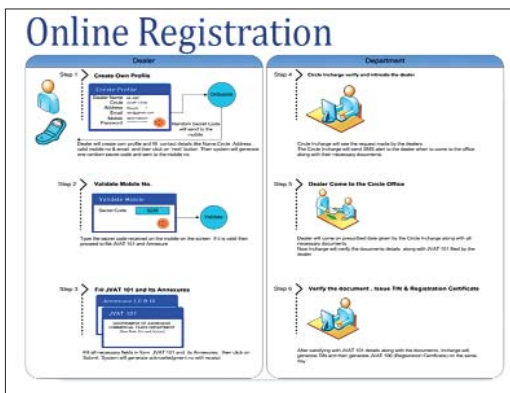
Goa: Making a Difference through e-Governance

The coastal state of Goa known for its swaying palms, sunny beaches and progressive life style has not been far behind in the field of information technology. Having bagged the prestigious CSI-NIHILENT: Most Progressive e-Governed State Award in 2006-07 the last few years have seen Goa leapfrog into the cyber age.

Directorate of Accounts and NIC, Goa team accepting the award at CSI-NIHILANT 2009 in Pune

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NIC Goa has played a pivotal role, providing quiet and critical support by developing and implementing applications that have made a difference.

Accounts Online:
This application has been developed by NIC, Goa for the Directorate of Accounts (DOA), Government of Goa. NIC, Goa has been providing IT support to DOA since 1993. The DOA's and NIC's joint efforts at computerization were rewarded in the form of bagging the prestigious CSI-NIHILENT Award in the department category in 2009. The DOA is the budget controlling authority for the Government of Goa. DOA has two offices one in North Goa and one in South Goa. There are two District Treasuries and 9 Sub-Treasuries. Besides there are various sections doing different kinds of functional activities in DOA. The Accounts-Online a web-based project, has been implemented in the DOA to meet all their functional requirements. Some of the systems implemented are as follows:

- Integrated Bill Processing System
- MICR Cheques
- Compilation of Accounts
- Budget Processing
- Treasury Accounting System
- General Provident Fund System
- Contribution Pension System
- Advances Management System
- Loans Management System
- Works Audit System
- Pension Accounting System

■ Online Financial Information System

From April 1, 2011, a new system called **eDDO** will be in place that will allow the Drawing & Disbursing Officers (DDO) of all departments to manage their allotment of funds. With this, the DOA will be opening its database service sphere to other departments. The DOA already has data sharing facility with the Finance Department and the AG, Goa office. The DOA also pays its gazetted officers through the ECS mode of payment. SMS intimation is provided after successful crediting of salary.
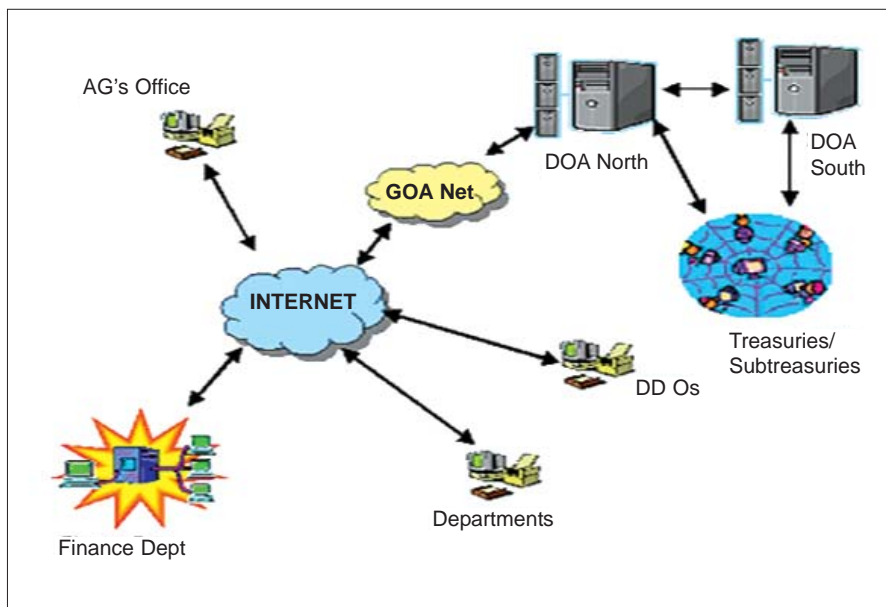
Dharani

Goa was the first state to have 100% computerized Land Records. Both rural & urban Record of Rights (ROR) is computerized. The current version,

DHARANI-II developed and implemented by NIC, Goa for the Department of Settlement and Land

Records (DSLR) has the following major services:

■ Dharani Rural & Dharani Urban

Sh. Jose Phillip, Hon'ble Revenue Minister (Govt. of Goa), Sh. R Mihir Vardhan, Collector (North Goa) and Director Settlement & Land Records, Sh. G H Subhash, Scientist "C", NIC, Goa, Sh. B S Borkar, MD GEL with Smt. Revathi Mazumdar, CEO, GEL receiving the award at CSI 2010, Mumbai on 26th November 2010

are the textual web-based solutions implemented for maintenance of Rural & Urban ROR's for Government of Goa.

- Legacy data conversion to UNI-CODE
- Digital Crop Survey

Under this project, DSLR had issued a Netbook PC to all 200 Talathis of Goa, for conducting crop survey. Each Netbook is provided with ROR data, cadastral maps of saza & a click-once based solution for recording the cultivator entries in the Kharif & Rabi seasons. The recorded cultivator details are pushed through web service, which enables the Mamlatdars (Tehsildars) to certify the cultivator entries using Dharani Rural. Once entries are certified the entries appear on the Record of Rights.

Some of the other facilities of DHA-RANI-II are:

- A web enabled Touch Screen Kiosk Interface is available at all Mamlatdar offices.
- Biometric authentication is provided

This project was awarded the prestigious CSI-NIHILENT Award of Excellence in the project category in 2010. Dharani-II for Rural ROR is implemented in all 11 talukas of Goa. Dharani-II for Urban ROR is implemented in all 4 City Survey Offices of Goa. 13 Mahiti Ghars issue RORs in Goa.

e-Ticketing at the IFFI 2010
Goa has been hosting the International Film Festival of India (IFFI) for the past few years. And every year NIC, Goa gives all IT support to the organizers. During IFFI 2010, the concept of e-Ticketing was introduced with a view to reduce the queues at every screening venue of the IFFI. The e-Ticketing facility allows all approved delegates and media personnel to create a login using their delegate ID.

Sh. Digambar Kamat, Chief Minister of Goa, launching e-Services Portal

VATSoft
VATSoft is an efficient and user-friendly application for the Commercial Tax Offices (CTO) in the state of Goa. This system is an excellent example of taking

e-Governance to the business community. All the seven CTOs are interconnected with the Head Office through the state-wide intranet Goa Broad Band Network (GBBN). The system developed and customized by NIC Goa, has the following features:

- Automatic generation of TIN number.
- VATSoft is Web enabled.
- All statutory forms are bar coded. And can be read by barcode readers.
- Notification to users on software updates is online.
- Simplified process for transfer and cancellation of Registered Dealers.
- Online payment through Cyber Treasury and Banks.
- Dissemination of online information to the Enforcement Wing through VPN enabled Wireless net work.

Some of the modules implemented are

Registration, Tax Collection, e-Filing of **returns, Assessment of dealers** etc.

With the introduction of the VATSoft system in May 2008, the objectives of providing clean administration of registration of dealers, better and efficient monitoring and collection of tax, online payment of tax have been met.

Vahan and Sarathi for the Road Transport Department
The Vahan software developed by NIC-HQ is successfully implemented in all 7 RTO locations in Goa in April 2010. This software is primarily designed for Registration of Vehicles. Vahan software has the features like Registration of New Vehicles, Issuance of Fitness Certificate, Road Tax Collection, Transfer of Ownership, Renewal of Registration, Permits etc.

The Sarathi software developed by NIC Hyderabad, has also been successfully implemented in all 7 RTO's in GOA in October 2010. Sarathi is used for providing Learning/Driving Licenses to the public. Sarathi
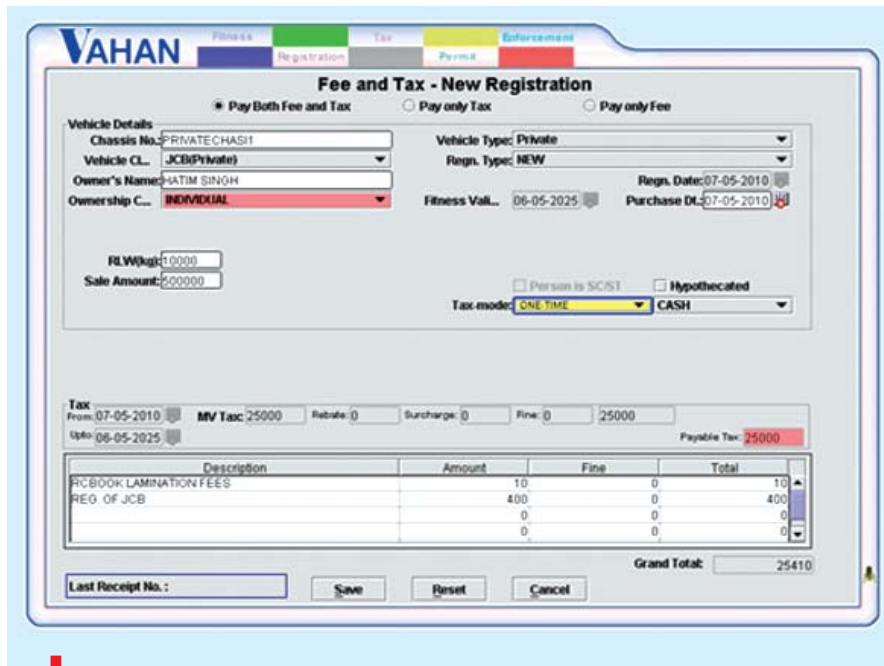
Vahan System

Software facilitates Issue of fresh Learner's/Driver's Licence, Renewal of Learner's/Driver's Licence, Duplicate Learner's/Driver's Licence, Change of Name/Address in Driving Licence, Duplicate Driving Licence etc.

Goa is the first state in the country to introduce vehicle registration at Dealers' location. NIC Goa has developed a web-based module to facilitate vehicle registration at Dealers' location and seamlessly integrated this module with the Vahan software.

File Management System

The File Management System (FMS) is a web-based system, designed with the sole purpose of facilitating tracing of files and documents within a government department as well as between departments.

How it works

- Every time a letter/ file is inwarded at the entry point in a government office, a unique number is generated.
- This number is used to trace the movement of the letter/ file in the government department and also if it is marked outside the department

to another department. Some salient features of this system are:

- Online help available.
- The system has different roles for different categories of users such as central registry, sectional

inward/outward, dealing hand, super user and administrator to cater to functional requirements of a department.

- An exhaustive list of MIS reports is available for departmental use.
- Letter/ file can be moved between departments seamlessly.
- Tracing mechanism is available.
- One has to remember only the unique number generated at first entry point, in order to trace letter/ file.

FMS designed and developed by NIC, Goa was successfully implemented in the state Secretariat in September 2010. FMS is now being replicated and implemented in other departments. Till date, more than 800 people from 20 departments have been trained in the use of FMS. This system available through the state Intranet GBBN is now being used by the departments to track their files.

e-Services

This year on 26th January 2011, the e-Services facility for citizens, government and business were inaugurated by the Chief Minister of Goa, Sh.
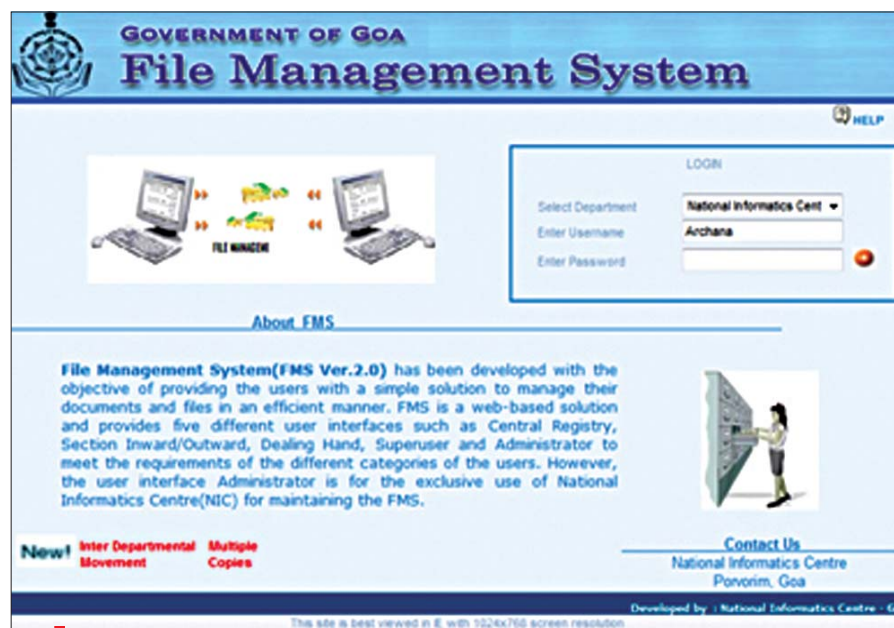
Web based FMS system

Digambar Kamat. The portal aims to provide the facility for citizens to submit online forms for the services identified by the state to be delivered online and through Lok Seva Kendras (LSKs). This portal will also cater to the requirements of all the Government departments to access and process the e-Forms submitted online.

e-Services managed by NIC, Goa are as follows:

■ Land Records Services
Application for Form I & XIV
Application for Form D

■ RTO Services
- ◆ Application for Grant of Learners Licence (Form 2)
- ◆ Application for Licence to drive Motor Vehicle (Form 4)
- ◆ Application for Renewal of Driving Licence
- ◆ Application Duplicate Driving Licence
- ◆ Application for Grant of Yellow/ Black Taxi, Autorickshaw, Motorcycle
- ◆ Application for Subsidy for replacement of 15 year old bus/ minibus

■ Municipal Services
- ◆ Search Birth/Death Records
- ◆ Application for Copy of Birth Certificate
- ◆ Application for Copy of Death Certificate
- ◆ Application for Issue of Income Certificate
- ◆ Application for Copy of Construction Licence
- ◆ Application for Copy of Occupancy Certificate

■ Village Panchayat Services
- ◆ Search Birth/Death Record
- ◆ Application for Copy of Birth Certificate
- ◆ Application for Copy of Death Certificate
- ◆ Application for Issue of Income Certificate

■ Commercial Tax
- ◆ Submission of Application for Dealer Registration under VAT/ CST / Luxury Tax/ Entertainment Tax/ Entry Tax/ TDS
- ◆ Renewal of Registration under VAT / Luxury Tax/ Entertainment Tax/ TDS
- ◆ Filing of Returns for VAT/ CST/ COT/ Luxury Tax/ Entertainment Tax/ Entry Tax/ TDS
- ◆ Payment of VAT /CST

■ Collectorate & Taluka Officer (South Goa)
- ◆ Application for issue of divergence certificate
- ◆ Application for issue of income certificate
- ◆ Application for issue of residence certificate
- ◆ Application for issue of caste certificate
- ◆ Renewal of Arms license
- ◆ Application for issue of domicile certificate
- ◆ Video parlour license-new license/renewal license
- ◆ Application for issue of sound permission

With the introducing of e-Services, the Goa government's serious intent at providing various utility services from a single portal has been vindicated. The e-Services portal is a Single Window Service Delivery Channel for G2C and G2B Services for ensuring accessibility, convenience, transparency and timeliness in service delivery.

DC*Suite & Taluka*Suite
DC*Suite and Taluka*Suite are an integrated suite of applications for the South Goa District Collectorate and Taluka offices based on an integrated solution architecture covering all functional areas and activities of the South Goa District Collectorate and Taluka offices.

It is a web enabled solution built on industry standard software technologies and best practices.

DC*Suite & Taluka*Suite project aims at making all the services of the South Goa District Collectorate and Taluka Offices more accessible to the citizens.

Public Access, Transparent Administration, and **Service Delivery** are the key features of this project.

DC*Suite & Taluka*Suite will help the South Goa District Administration to achieve:
- ■ Less Paper Office
- ■ Efficient Monitoring
- ■ Transparency
- ■ Speedy Disposals
- ■ Best Citizen Services delivery

With the total computerization of the South Goa District Collectorate and all the five Taluka offices, people would be able to track the status of a file or an application in the South Goa District Collectorate and Taluka offices easily either through the Citizen Facilitation Centre or through the Touch Screen based Kiosks installed at the important places or through the SMS based service provided by the South Goa District Administration.

Passing Remarks: With most IT initiatives running successfully to completion, Goa hopes to reinforce its image not only as an international holiday destination, but also as a state that provides SMART (Simple, Moral, Accountable, Transparent and Responsive) governance to it citizens.

For further information

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"Krushak Samrudhi"- A Unique ICT Initiative to Empower Farmers

Exclusive talk with Sh. Ashok K.K. Meena, IAS Commissioner-cum-Secretary, Food Supplies and Consumer Welfare Department, Govt. of Orissa.

Interviewed by: Sh. Ashok Rout, DIO, Sonepur, NIC Orissa
Coordinated by: Sh. A. K. Hota, Technical Director & Dist. Coordinator, NIC, Orissa

We congratulate you for completing almost two years successful rollout of 'Krushak Samrudhi' for the online monitoring of Paddy Procurement at Sonepur District. Would like to hear more from you on the strategy adopted for the pilot initiative.

Thank you. I extend the same to all the team members who have been working day and night for success of the project. This is a project essential to a state like Orissa for various aspects of Socio, Economical and Political point of view. This project was conceived in 2009. The project has direct impact on the livelihood of farmers and primarily deals with streamlining of Paddy Procurement activities and related processes. Food and Civil Supplies department, Govt. of Orissa has been the driving force behind it in Sonepur District.

Can you please brief us about the project?

Yes, about 85% population of Orissa lives in villages depending on Agriculture. Paddy in Orissa is the major crop and appx. 90% people of Sonepur district are directly / indirectly dependant on the paddy production. Now the major issue here is selling of paddy by farmers to sustain their livelihood throughout the year. And so our objective was to give the farmers their fair share of labour and income. This project aims at bridging the gap between the farmer as a Seller and Govt as a Buyer and overcome the obstacles associated with it in eliminating the middlemen who earn money through manipulated means and exploitation of poor farmers.

With top down approach and active support of Hon'ble CM Sh. Naveen Patnaik ,Orissa, who inaugurated the Farmer Kiosk on 2nd Feb 2010, thus giving impetus for faster implementation in Sonepur district.

Can you please elaborate the Socio - Economic aspects of this project as you have pointed out and what exactly are the benefits to the farmers?

See, the major source of income of farmers in this district is from Paddy cultivation both in Kharif and in Ravi seasons. So it is quite natural that they need to sell their paddy they have produced to sustain their livelihood for the entire year. Here comes the problem, where the middlemen exploit the farmer by purchasing their paddy in comparatively lesser price by any means and then reselling them to Govt. in the Minimum Support Price, which in term prevents the genuine farmers to get the financial benefits that our Department is providing them for their socio-economic enhancement. This is highly sensitive considering current issues like Farmer's exploitation, deaths etc. thus causing social unrest and other sort of problems. Our objective was to check such menaces by using Information and Communication tools (ICT) in Agriculture.

How have you implemented ICT for Agriculture in Sonepur District?

Without introducing ICT, it was not possible to streamline the activities related to Paddy procurement. NIC came up with a package called "Krushak Samrudhi" with the objective to provide equal opportunity to all farmers to sale their surplus paddy in Govt. approved rates, Identification of genuine

farmers at the Paddy procurement centres (PPCs), to restrict the middlemen from selling the unlawful paddy, Prevent chaotic rush of farmers and vehicles at the PPCs by maintaining an advance purchase programme register for paddy procurement, to help the district administration for keep track of workload on PPCs based on scheduling schemes and pre appointment to farmers etc. This was accomplished by Providing unique ID & tamper proof Farmer Identity Card to all farmers, capturing fingerprints through biometric devices.

It was a mammoth task as the database needed to be ready with details of more than one lakh farmers, their land schedules etc.

That seemed to be quite challenging and how could you organize the Capacity Building and the project planning?

The major challenges were to make available the requisite infrastructure like computers, internet connectivity, Kiosks etc at various locations; Paddy Procurement centres operated at PACs of Co-Operative Societies , Self Help Groups (SHGs), RMC Yards (Regulated Market Committee), Procurements centres of FCI, NAFED, MARKFED etc. Another challenge was verifying the ROR data of Farmers through village wise camp and also to capture their finger prints through Biometric Scanners, so that during procurement and payment the actual beneficiary would be privileged. Another target was to make aware the farmers about the use of ICT and its benefits. There are 92 PPCs in the district and we have planned online data entry at 63 PPCs through data card /dongles and offline data entry at the locations which have net connectivity problems.

This verification, biometric capture process, distribution of FIC was carried out by deploying unemployed youths of the village under the supervision of District Administration & NIC Officials.

Will you please elaborate how the process exactly works and how the uses of Biometric devices have

helped in this project?

After harvesting, the farmers go to the PPCs and they get their queue number (Token) for a particular date to bring the paddy for sale. This token is provided on first cum first serve basis and is based on the handling capacity of the PPCs and as per the procurement limits fixed by the District Administration. Upon arrival on the scheduled date, identity of the farmer is checked based on the FIC card and Biometric authentication. During payment also, the same person is identified through biometric devices and the payment is made to the right person only. Real time data transfer is made from the PPC itself to the server through web application. We have also installed user friendly Kiosks at various locations where a Farmer can see the details like the date on which he is listed, his payment details, surplus paddy based on crop cutting experiment, area of land cultivated etc.

What other benefits you have noticed and how this process has been able to address the real life issues, you have specified like elimination of middlemen, exploitation etc.?

For this to understand, one needs to look at the processes in the pre-computerized manual system. See, more often, the villagers take hand loans and put some of their belongings like identity cards and other valuable documents like ROR, ration card etc. as mortgage. This is a very common practice prevalent in villages. So during paddy procurement, the poor villagers are exploited by forceful selling of paddy to these middlemen at lower prices or at the paddy procurement units itself because of long waiting time for multiple days in false queue system. Moreover, this leads to pay hefty charges for transportation and many a times farmers are forced to sell the paddy at lower prices right at the PPCs to the middlemen. Apart from this, there used to be lots of duplicate identity cards and are falsely used by middlemen. This exhausts the Government buying limits and the farmers are not able to sale their lot. This queuing system and the card duplicity

have been checked by "Krishak Samrudhi" software, usage of Biometric Devices thus extending the fair Government price to the farmers itself.

What are the key factors for success of the project and how Farmers have perceived this unique ICT initiation of your department?

This project was materialized with better Intra departmental Co-ordinations facilitated by some dedicated people who were committed to give farmers' right to farmers only. I would attribute successful implementation at Sonepur district to all the members who have contributed significantly in this project namely Sh. Gagan Bihari Swain, Collector, Sonepur, Sh. Bhabani Shankar Panda, Ex-Collector, Sonepur, Sh. Amareswar Mishra, Deputy Director Agriculture, Sonepur, Sh. Utkal Ranjan Acharya, Deputy Collector, Sonepur, Sh. Bijay Kumar Ratha, CSO, Sonepur. Also I would like to congratulate Sh. Ashok Rout, District Informatics Officer, NIC, Sonepur, & Sh. Sushant Kumar Bhol, TD as the team under the proactive guidance of Sh. Susanta Kumar Panda, SIO & Sr. Tech. Director, NIC, selflessly toiled day & night and supported the programme to make it successful & sustainable in the short span of time. Their energized work culture motivated the youngsters (computer team) to participate in the project to such an extent that cozy going technocrats forgot their daily grinding to bring laughter & happiness in the poorest of the poor farmer's face.

This has got overwhelming reciprocation from farmers & NIC professionals are known as "Computer Babu" popularly among villagers as they have worked hard to make this a huge success.

This has definitely started a new revolution and would spread to other districts of Orissa and I am confident that this would substantially help farmers and build their confidence on Govt.

We thank you for your valuable time spared for discussing with us & our sincere wish & pray for your visions to come true.

Aspect Oriented Programming

There are already a lot of robust programming methodologies like "Object Oriented Programming", "Procedural Programming" and "Distributed OOP". So, is it really a necessity to have another programming methodology named "Aspect Oriented Programming"? Is "Aspect Oriented Programming" is a substitute for "Object Oriented Programming"? What is an aspect? Many questions come in mind and the mystery gets more puzzled when Googling in the internet. This article gives a brief idea of this new programming paradigm coined by Gregor Kiczales.

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OBJECT Oriented Programming (OOP) has created a revolution by simplifying the computing problems through visualization of a system as a group of entities and interaction between those entities. But this revolutionary model is very static in nature and any changes in the requirement regarding the security, logging or exception handling can seriously affect the development timeline. In the OOP many classes and methods used to contain some codes, which are not the primary responsibility of that class/method. These kinds of codes are used to be called as tangle codes.

For Example: In an e-Governance application, one form has been developed to take employee code as an input and produce the service book of the employee with options to print and send through e-mail. In this application the class "get_emp_details" supposed to be responsible for only to process the input i.e. employee code and provide the output. But due to the static nature of OOP the class is forced to sanitize the input from malicious character to avoid Sql Injection attack, call the "print()" method of another class to print the service book as well as calls the "send_mail()" method to send service book through e-mail. These extra codes are called as tangles codes and their entry points are called as cross cuts. This kind of codes actually dilutes the real concepts of modularity. In this case, the primary responsibility of the class "get_emp_details" is to fetch the service book from database by taking the employee code as input. The secondary responsibility is to sanitize input parameters and call "print()" as well as "send_mail()" methods.

The additional codes required to fulfill the secondary responsibility of the "get_emp_details" class can be kept in a single location rather than its redundant use by different classes at different time. To complement the OOP, Aspect Oriented Programming (AOP) allows the developer to dynamically modify the static Object Oriented Model to create a system that can grow as and when new requirement arrives.

"Aspect Oriented Programming is a methodology to separate cross cut code across different modules in a software system."

AOP provides the solution for Tangle Codes by separating primary codes and secondary codes in separate modules and then feed both the modules to the compiler. AOP does not replace existing programming

```
public void get_det(empcode as string)
{
        Cls_security sec = new Cls_security (empcode);
        Sempcode =sec.sanitize();

        /////////////////////////////////////////
        // This method fetches the service book
        //
        // Adding code will go here
        /////////////////////////////////////////
        // After fetching from database email is sent
        Cls_Email Obj_email = new Cls_Email ();
        Obj_email.Send ();
        // After sending email its printed
        Cls_Print Obj_Print = new Cls_Print();
        Obj_Print.Print();

}
```

Primary Code

Secondary codes/Tangle Code
-This Dilute the core responsibility of the method
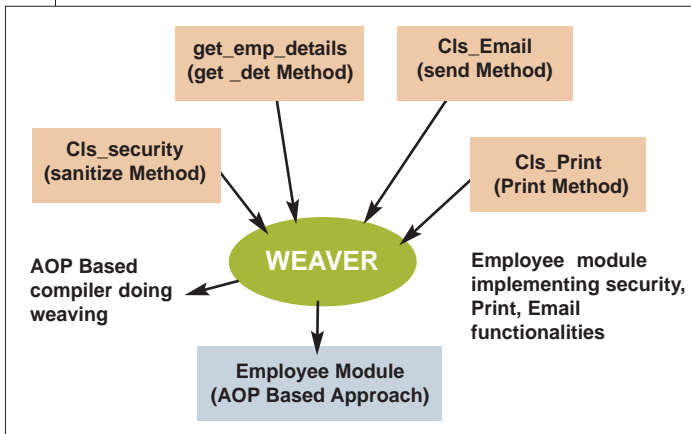
paradigms and languages; instead, it works with them to improve their expressiveness and utility. It enhances our ability to express the separation of concerns, necessary for a well-designed, maintainable software system. AOP supported compilers generates single executable module after the compilation of the both Primary & secondary codes. This process of compiling core and cross cut concern together by the AOP supported compiler is to be known as weaving.

Types of AOP Compilers

- **Compile Time Weaving:** In this weaving the core concern (Primary code) and cross cutting concern (Secondary code) is weaved by the AOP compiler at compile time and then feed in to the main compiler.
- **Link time Weaving:** This type of AOP compiler should weave the core concern and cross cutting concern after the generation of intermediate code at the linker level.
- **Run time Weaving:** Here the core concern and cross cutting concern are used to be detected and executed at run time.

Terminologies used in AOP

Cross cuts: A program logic is used to be consists of many distinct parts called as concerns. Few methodologies like procedures, modules and classes are used to separate, group and encapsulate different concerns of the pro-

gram logic. Still there are some kinds of concerns which are not feasible to be implemented through the above mentioned methodology as this concern cuts across multiple abstraction in a program. Logging exemplifies a crosscutting concern because a logging strategy necessarily affects every logged part of the system. Logging thereby crosscuts all logged classes and methods. Exception Handling, Security and fault tolerance codes may also be considered as crosscutting concerns in the core module.

Advice: The "advice" is an extra code required to fulfill the secondary requirements of the existing model. Code to implement logging, security, exception handling etc. can be considered as an advice in the perspective of AOP. It defines what needs to be applied and when in a particular system. In AOP there are different types of Advice as Before Advice, After Advice, Around Advice and Throws Advice.

Joint Points: These are the points before and after the method execution where the Advice needs to be applied. This is the term given to the point of execution in the application at which cross-cutting concern needs to be applied. The combination of different 'Joint points' where the advice need to be applied is called 'Point cuts'.

Aspect: Aspect is the combination of Pointcuts and Advice. In a better way it can be said that, the

act of appling Advice at the "Point Cuts" is called Aspect.

In the context of above "employee module" implementation, let us see the logging features through AOP based approach.

Security code, exception handling, Self Healing System implementation, fault tolerance codes, logging features etc are becoming more and more popular in today's software development to achieve quality, security and robustness in the software. The AOP concept has given an opportunity for the developer to adopt a modular release approach for the software and make the application "attack proof" with out changing the core classes repeatedly. As realists, we acknowledge that no one process, technique, language, or platform is good for all situations and AOP is not out of the box. Specifically AOP may not be suitable when code review is extensively in used for security audit and other testing purposes as, we do not know whether the code might be either augmented by an advice from some aspect or completely replaced by such advice at runtime. To be able to reason about an application's code, we must be able to look at the code from each class as well as the code for any aspects that might affect the class's behavior. However the AOP is a best tool for migration of a legacy system and modify their existing functionalities without affecting their core codes so much.

Promise of HTML5

The Hypertext Markup Language (HTML) is meant for describing the structure of the Web Pages. HTML5 is the newest major revision of HTML. It has been built around the principles of Compatibility, Utility, Interoperability and Universal Access. Its goal is to improve semantics, efficiency, and usability of web development as well as the deployment and usability of the World Wide Web.

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TILL now the structuring of a web page for layout and content was achieved using a generic element like a div with an id of "header" or "navigation". The idea with HTML5 is to identify common patterns and use them to impart real meaning on standard web page elements. So, instead of using a generic element like a div with an id of "header," a new element called header was created. This will allow for much smarter interactions between web browsers/search engine spiders and web content.

Take the example of input validations. The developer has to keep in mind the input fields that were required for form processing and then write complex code for validating the inputs. Now with HTML5 just add another attribute "required"

to the form control where input is mandatory and you are done. No separate coding hassle for simple things.

Developers were required to write their own complex code or use third party components for displaying Web controls like calendar, date or time. With HTML5, it is just another input type date that displays a calendar on the web page with all ease.

Here we are going to cover some features of HTML5 that shows the significant improvement over its previous version HTML4:

BETTER STRUCTURE

HTML5 introduces a whole set of new elements that make it much easier to structure pages. Most HTML4 pages include a variety of common structures, such as headers, footers and columns and today, it is fairly common to mark them up using div elements, giving each div a descriptive id or class. Take a look at new elements which minimises the use of divs and

make the page more structured.

- In HTML5, there is only one doc type. It is declared in the beginning of the page by <!doctype html>.
- The **nav** tag is used to contain navigational elements, such as the main navigation on a site or more specialized navigation like next/previous-links.
- The **section** tag is used to denote a section in the document. Multiple sections can be nested inside each other.
- The **article** tag represents an independent piece of content of a document, such as a blog entry or newspaper article.
- **aside** tag is used to wrap around content related to the main content of the page that could still stand on it's own and make sense.
- The **footer** tag may contain additional information about the main content, such as information about the writer, copyright information and so on.

THE CANVAS

A canvas is a rectangular area on your page where JavaScript can be used to draw anything you want. This feature allows rendering of graphs, game graphics, or other visual images on the fly. HTML5 defines a set of functions (canvas API) for drawing shapes, defining paths, creating gradients, and applying transformations.

SUPPORT FOR VIDEO AND AUDIO

The video tag is one of those HTML5 features that get a lot of attention. No more plugins for video/audio is required. Its just a few line of html code and you are done:

```
<video src="mymovie.webm" controls="controls"/>
```

your browser does not support the video tag

```
</video>
```

SMARTER FORMS AND

ENHANCED CONTROL OVER INPUTS

HTML5 defines over a dozen new input types that can be used with forms. It reduces lot of programming effort and provides standard way of handling inputs. Some important input types are:

Email address, URL, Number, Range, Date & time, Color picker

Gone are the days when you used third party controls and struggled a lot for their browser compatibility and implementation with your web apps. Think of a calendar control which you can now use with a single line of code.

```
<input name="startdate" type="date">
```

and the calendar is displayed. Further the date and time related inputs can be handled in several ways like "date", "month", "week", "time", "datetime" or "datetime-local".

Similarly, for any input field that is a required field, simply add an attribute "required" and it works fine. No need to write complex javascript codes.

```
<input name="empname" required>
```

With "placeholder" attribute you may assign significant information for users while they fill up the form. With "autofocus" attribute you can easily set focus to any form element when the form loads.

WEB WORKERS

Web Workers provide a standard way for browsers to run JavaScript in the background. With web workers, you can spawn multiple "threads" that all run at the same time, more or less (Similar to the way computer can run multiple applications at the same time). These "background threads" can do complex mathematical calculations, make network requests, or access local storage while the main web page responds to the user scrolling, clicking, or typing.

OFFLINE WEB APPLICATIONS

Using HTML5 you can build offline web applications. During your first visit to an offline enabled website, a list of all the dependent files (HTML, JavaScript, images etc.) is downloaded and stored on the visitor's computer. After that you use the website in offline mode. The changes made during your offline operation, is uploaded to the website when you visit it in online mode.

GEOLOCATION

The geolocation APIs make location, whether generated via GPS, cell-tower triangulation or wi-fi databases available to any HTML5-compatible browser-based application.

The power of HTML5 is already being unleashed in the smartphone/ tablet space. Owing to the lack of mobile flash support and the presence of robust Webkit-based browsers in Android, Apple and Palm's smartphones, HTML5 applications and media are strong in the mobile space.

The developer community world over is excited by the features and promises of HTML5. New experiments, comments and testing are going on new specifications. Recent versions of Firefox, Google Chrome, Opera and Apple Safari support majority of the specification. With lot more companies developing authoring tools and browsers promising to come up with new versions supporting HTML5 specification we expect that in the next two or three years HTML5 will reach a critical mass and begin to dominate the web.

CONCLUSION

HTML5 shows all promises of becoming a platform for the web that is state-of-the-art as well as broadly available. Together with browser improvements, especially regarding script engines, HTML will become an adequate development platform for state-of-the-art web applications and the emerging mobile area. Any organization with a stake in the web needs to be prepared for the paradigm shift that is going to happen soon.

Efficient Centralised Software using Office Business Applications

Centralized Software are the genre of applications which uses the latest advancements in technology providing solutions that are easier to implement, saves in a lot of money and are highly scalable.
Implementing Centralized Software using Office Business Application results in effective harnessing of the power of latest advancements in technology thereby producing software that is easily maintainable and has great acceptability amongst the users.

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Reviewed by
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IMAGINE a situation wherein we have a large user set spread across the country and everyday at end of day they have to send a daily report to their central office. The mechanism is pretty similar to what traditional bank systems were implementing in the last decade, but their solutions involved huge cost overruns (due to high cost of setting up the infrastructure and their maintenance). To offset high investment in setting up the required hardware in numerous places and later spending money on their maintenance and purchase of software for this, an alternative cheaper, technologically advanced way is to implement centralized software.

What is an Office Business Application (OBA)?

As the name suggests OBA is used to refer to class of applications intended to perform business operations using productive tools (such as Microsoft Office) as frontend.

It aims to bring the users close to interacting with the Database (which can be anything ranging from a standalone database application to Line of business applications) comfortably. The main idea behind an OBA solution is that users are comfortable using the regular ms-office tools for doing their day to day office activities. For interacting with the database they have to move back to traditional applications to perform certain Create Read Update Delete (CRUD) operations. This is where OBA comes into action and scores over the traditional approach - user does all his work in the Office Application such as Word or Excel and when he wishes, saves the changes back to database or the line of business application.

OBA applications not only pres-

CENTRALIZED APPLICATION MODEL

- Model is highly scalable
- Can sync in huge data between servers using WCF
- Supports transaction mode and is state based
- Supports various protocols tcp, http, https

Central Database

Central WebServer

WCF

WCF

Client Application Location 1

Client Application Location 2

Local Repository is available with clients which can be used in case internet connection fails
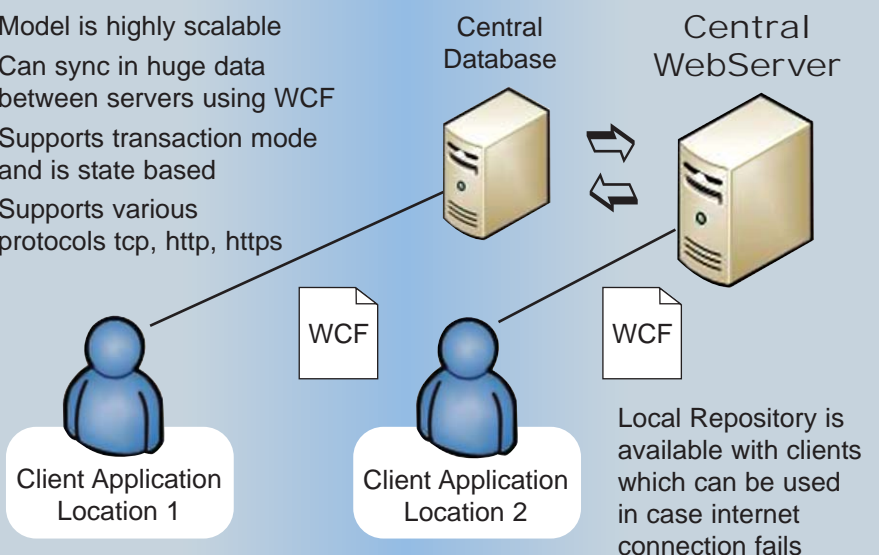
ents the user with the option of comfortable and friendly user interface but also takes care of all the prerequisites and makes the working for the user very easy and comfortable .

The OBAs developed for this purpose presents the user with the office interface with which he is comfortable in working with, the OBAs in turn will have some intelligence built into it which performs validation on the data that the user has entered.

After the data has been validated the user makes a request to the server to save the data. This can be particularly useful for users who have an intermittent web connection. When the user is connected to the web he can fire his updates right from the Office application meanwhile working on the data in between.

Users in the government sector are not always very IT savvy. Many a times we have faced situations where users are concerned with the difficulties faced in the installation of prerequisites for installing a software. The installations of the prerequisites and the technical complexities that come with it are one the hurdles in adopting the software. Everyone will cherish the idea of a software which detects all its prerequisites, installs them and keeps the user interference to the minimum.

OBA - Model

OBA can be perceived to be a simple model consisting of three parts:

The Office client that integrates with the Line of Business system, the web server (essentially MOSS) that which might integrate with the Line of Business system and the Line of Business system itself. Note that when building OBAs, developers can also leverage other Microsoft server products such as Exchange Server 2007, PerformancePoint Server 2007, and so on.

Architecturally different from the SOA (service oriented architecture) OBAs can be developed by using stan-

dard Microsoft technologies such as Visual studio tools for office (VSTO 3.0 available in visual studio 2008).

Subsets of the following set of technologies can be used for leveraging the full power of OBA solutions -VSTO, MOSS , BDC, Open XML, Web Parts VSTO(ribbons custom panes, etc.) , BDC excel services ,Windows Workflow Foundation, Windows SharePoint services, InfoPath form services.

OBA - Office System integration Models

Mediated Integration requires creation of a services layer which mediates integration between the Line of Business system and the custom client components (for example, the custom task pane), thus facilitating reuse across multiple systems and loose coupling between the client and server. For a typical data entry OBA application used in the government scenarios we can now create a Web service that wraps around the data entry module (where all of the data is entered) and integrate that Web service with all client interfaces. So if someone wants
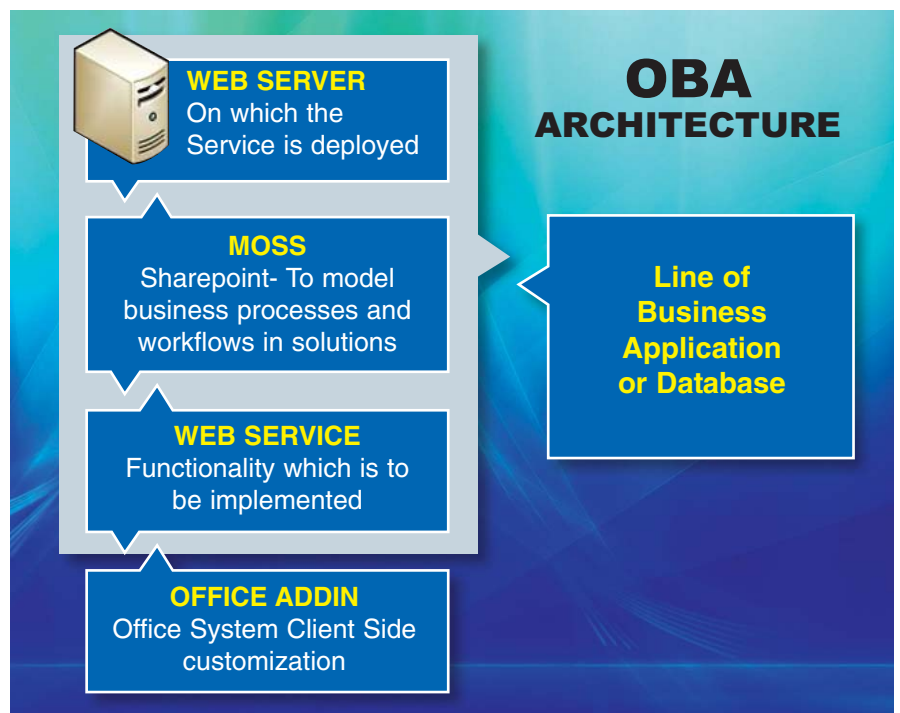
to integrate the Line of Business system with Excel, it is possible now. This service can then be used by creating a proxy stub in Visual studio 2008 or using Business Data Catalog (BDC) in case of SharePoint.

The resulting architecture leverages the Mediated Integration pattern; that is, an OBA that leverages Web services to provide desired functionality in Excel and SharePoint. The bigger advantage is, now the user can fire read/write queries right from the client side customization (in this case the Excel Sheet)

Office system is a good way to surface capabilities from other platform technologies e.g. SQL Server (data, integration / reporting / analysis services), BizTalk Server (business process management / monitoring), Active Directory (identity management).

OBAs can extend the reach of familiar frontend interfaces into the data stores in the back office.

For modeling business process we can use workflow technologies available in SharePoint. It can range from simple sequential workflows to complex state machine workflows.

OBA ARCHITECTURE

WEB SERVER
On which the Service is deployed

MOSS
Sharepoint- To model business processes and workflows in solutions

WEB SERVICE
Functionality which is to be implemented

OFFICE ADDIN
Office System Client Side customization

Line of Business Application or Database

For managing the lifecycle of business processes / business entities (esp. when coordinating across multiple groups or organizations), we can use BizTalk to handle business processes external to SharePoint.

Three tier applications are best suited to transactional tools (that handles data entry). OBAs when used in collaboration with SharePoint and MOSS capabilities can also include human workflows and system workflows.

Advantages of using this modified approach of implementing centralized softwares

- Using this approach the client becomes a smart client though being light and requiring no installation on the user end such as database license and additional hardware purchases.
- Using WCF has a lot of advantages over the traditional Web services. It

is state based, can be used to perform transaction, provides concurrent access and can use any protocol to communicate. Further they can be made very secure so as not to be tampered with and they also support https. They can also synchronize huge amount of data.

- Using Click once download facility. This facility is a boon for developers whose solutions are being used by user spread across far off places. The updates are hosted on a single place on the web server. The applications go and check whether newer updates are available notifies the user and with the permission of the user installs the newer version. All these things happen automatically with least user intervention.

Future of OBAs

OBA Applications when used in inte-

gration with moss and SharePoint will give the class of business applications a new value. OBA applications, if properly implemented could serve as a boon to the users working in the Government administration, saving time and enhancing the usability and functionality of Business applications.

For further information

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UPCOMING ICT EVENTS

2011 International Conference on Computer Communication and Management
Sydney, Australia
2nd-4th May, 2011
http://www.icccm.org/

International Smart Grid Congress Asia 2011
Beijing, China
10th - 13th May, 2011
http://www.isgcc.org/

International Conference on Multimedia Computing & Information Technology
Warszawa, Poland
24th - 25th July, 2011
http://www.icmcit.com/

The First International Conference on e-Technologies and Networks for Development
Dar-es-Salaam, Tanzania

3rd - 5th August, 2011
http://www.sdiwc.net/tn/index.php

International Conference on Parallel, Distributed Computing technologies and Applications, 2011
Krems,Austria
5th - 6th May, 2011
http://www.donau-uni.ac.at/en/department/gpa/telematik/edemocracy-conference/edem/vid/14978/index.php

7th International Conference on Web Information Systems and Technologies
Tirunelveli, India
23rd - 25th September, 2011
http://coneco2009.com/PDCTA/pdcta.html

International Conference on Integrated Information
Kos Island, Dodekanisa, Greece
29th September - 3rd October, 2011
http://www.icininfo.net/

Udham Singh Nagar: Moving ahead with ICT

Named after the legendry freedom fighter Shaheed Udham Singh, the district Udham Singh Nagar is also known as the 'Gateway to Kumaon hills'. It is famous for the world renowned Pantnagar University, which is one of the leading landmarks of learning in the fields of agriculture and technology. The district with a population of around 12 lakhs, spread across 656 villages in 7 sub-divisions and 27 Nyay Panchayats is fast developing as the leading industrial hub of the state of Uttarakhand.

eCourts

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Edited by **Anshu Rohatgi**

SINCE its inception in 1998, NIC, Udham Singh Nagar has played the key role in extending the e-Governance services to the people of the district. NIC officials have been awarded many times by the administration for effective promotion of ICT activities in the district and successful implementation of e-Governance. Even today, the NIC, District Centre is partnering the district administration to promote ICT based initiatives for the betterment of service delivery to the citizens and improving their quality of life.

State Wide Area Network (SWAN): One of the major achievements of the recent times is the implementation of SWAN in this hilly terrain, where connectivity was the major challenge. Under SWAN, 9 PoPs (Point of Presence) have been established connecting all the Tehsils & Blocks in the District to District Headquarters. Many State Government Departments such as Finance, Rural Development etc.

have already started using the SWAN PoP's for transmission of data for treasuries, MNREGA & other online projects while a number of Tehsils & Blocks have started audio-video sessions at District, State & National level. The SWAN connectivity has also been extended via LAN to Tehsil Land Records Computer Centre present in Kiccha, Kashipur, Sitarganj & Bajpur Tehsils, and to collectorate LAN with 80+ nodes extending Internet at the desk of the district administration.

e-Courts & Confonet: Under the District Court Computerization Project (e-Court) in the district, e-filing has been implemented and single window query system has been started. Uploading of cause list is being done on regular basis while the Judgments are also being uploaded on the web site. The District Consumer Forum (CONFONET) project also facilitates case filing & cause list entries are available on the website http://confonet.nic.in.

District Treasury Online: The District Treasury has been connected to the NIC District Centre and all the

district level accounting/transactions get updated on the treasury website http://ekosh.uk.gov.in/ in real time basis. The system is very effective for monitoring the financial health of the district and the state.

Land Records Computerzation: All the tehsils of the district are generating Khatauni or Record-of-Rights (ROR) with the help of Devbhoomi software deployed at Tehsil Level Land Records Computer Centers. The manual process of Khatauni has been totally replaced with computerized system and web services have been deployed for uploading the latest khatauni information on the state land records portal http://gov.ua.nic.in/devbhoomi/ . This enables the citizen to view his or her ROR online on Internet without the need to run around government offices for the same.

Mahatma Gandhi National Rural Employment Guarantee Act: Effective computerized monitoring of Mahatma Gandhi National Rural Employment Guarantee Act-2005 (MNREGA) is running since the year 2006 in district. All seven blocks have completed the offline data entry and are now carrying out the entries in an online mode on regular basis. Around 74000 registrations have already been done in the national level website of MNREGA.

Rashtriya Swasthya Bima Yojna (RSBY): RSBY is a health insurance scheme for the BPL families under which a smart card has been issued to each BPL family for all kind of medico-legal transactions. Udham Singh Nagar was one of the leading districts to implement the project. The first phase, which included personalization & distribution of smart cards for nominated BPL families, has already been completed in all the seven tehsils.

VAHAN & SARATHI: VAHAN & SARATHI applications for vehicle registration and issuance of driving

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IAS & District Magistrate,
Udham Singh Nagar

National Informatics Centre, Udham Singh Nagar has been functioning in this district since 1998. Over the years the District Centre has contributed effectively in promoting ICT activities and eGovrnance implementations in the block offices, tehsil offices and other line departments functioning in the district. I appreciate the efforts of of Shri Deepak Johari, DIO & Ms. Prite Joshi, DIA and wish them best of luck for all their future assignments.

license respectively have been operational in the district since 2007. More than 110000 vehicle registrations have been carried out so far through the system while 20,000+ computerized driving licenses have been issued using SARATHI. Both these applications have immensely benefitted the citizens of the district and transport authorities.

Election Computerization: NIC, Udham Singh Nagar has always played a key role during the Lok Sabha, Vidhan Sabha, Municipal or Nagar Panchayat elections. Almost all the election processes, viz, polling personnel deployment, counting personnel deployment, random allocation of booths to polling parties have been streamlined and automated. In addition, the district centre also facilitates and ensures online transmission of counting and results data to the Election Commission of India (ECI), Doordarshan and State Election Commission at the time of electons.

ICT Support to Other Departments: Apart from this NIC, District Centre is also providing ICT support to many other departments & offices in the district. All the district level officials have been provided e-mail facilities. Video Conferencing sessions are held on regular basis between State and District administration for departmental meetings and performance reviewing purposes. Several IT based applications such as Public Grievance Monitoring System, Letter Monitoring & Forwarding System, Arms & Licenses System have been implemented to help the district administration while an employment exchange portal has been hosted to help the student community and unemployed youth of the district. The district website of Udham Singh Nagar http://usnagar.nic.in provides the complete information of the district including its statistical profile, banking, industry, tourism information and much more.

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Pali: ICT enabled Initiatives Leading to Good Governance

With a glorious historical background, Pali traces its origin to Mahabharata when as a part of ancient Arbuda province, it was known as Balla-Desh. Memoirs of legendary Chinese traveler Huen-t-Sang, mentions it to be a part of Gurjar Desh in 667AD. Before the formation of Rajasthan, Pali was the part of erstwhile Marwar state. The Great Aravali hills link it with Ajmer, Rajsamand, Udaipur and Sirohi. Western Rajasthan's famous river Luni and its tributaries Jawai, Mithadi, Sukadi, Bandi and Guhiabala flows through Pali district.

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Edited by **Vivek Verma**

THE NeGP aims at spreading benefits of ICT revolution to the remotest and farthest villages of the country. Further, it aims at reducing redundancy and ensuring effectiveness and transparency in government functioning. Keeping the larger objective of this national programme in focus, some of the welcome initiatives of Pali district, with active involvement and technical support of NIC district center, have benefitted the people.

DISTRICT WEBSITE

Designed and hosted by NIC, the website of Pali District, http://pali.nic.in , is very informative and apart from providing the details related to land, climate, history, fairs and festivals, tourist places, contact

details, various forms, citizen charter etc., it also provides information regarding the various initiatives undertaken by the district administration for the benefit of citizens.

SUSASHAN - AN INITIATIVE

It aims at providing responsive, accountable, smart and public friendly governance by automating and simplifying the procedures through the use of ICT. "Sushasan Kendra"

Sushasan Kendra providing Single Window Service

has been established in all the SDM offices and one at headquarters. Citizens derive the benefit of Single Window services, where applications for domicile, caste, Income certificates, marriage, birth and death certificates and applications under RTI act, renewal of arms licenses etc are accepted and processed. Public Grievances Redressal System has also been implemented for acceptance and tracking of complaints received from public.

Benefits

In order to get multiple jobs done, one has to go to multiple offices and each requiring multiple visits which is very time consuming and costly affair for citizens. Sushasan Kendras have come as a boon for the citizens where for a job which earlier used to take 7-10 days, can now be done in 24 hrs. In the last 15 months, more than 33000 certificates have been issued at these Kendras.

PUBLIC GRIEVANCES REDRESSAL AND MNREGS HELPLINE

The system is in place for proper,

timely and qualitative disposal of complaints. MNREGS complaints are also handled by customized version of the same software which is run by the district e-Mitra society. Some of the features of the system are -

- Fully automated right from registration of complaints to its final disposal
- Every complainant is given a receipt and a PG number, which is used for all future interactions
- An automated forwarding letter is generated for designated field officer
- The reply from field office is processed and put up for perusal of the collector.
- Suitable instructions are passed for every case.
- Weekly monitoring system for which pendency reports are generated to keep a check on every officer's performance

OTHER ICT INITIATIVES

Apna Khata Implementation (Land Records Computerisation) - Implemented in all the nine tehsils of the district, it delivers instant, accurate & updated ROR to common man.

Treasury Computerization System - Implemented to provide financial information from treasuries to finance department. Data Depository System was developed to make a repository of all employees for various management purposes.

Election Management Software - Designed and developed for General Elections -2009, it was implemented in all the districts of Rajasthan. This software has a feature of three stage randomization as PER ECI guidelines and modules for. Polling parties appointment, Counting parties appointments and Micro observer appointments. Round the clock technical support was given to the districts.

Electronic Voting Machine

Randomization software having two stages randomization of EVMs, was also developed and implemented.

Arms License Monitoring System - To keep up-to-date record of Arms Licenses registered at District Administration.

Personnel Information System - Records complete details of the employees like previous postings leave record etc. and generates various reports like seniority lists, list of stay for two-three years etc.

IT awareness training - From time to time various IT awareness trainings have been organized to facilitate the end-users.

MIS for National Rural Employment Guarantee Act - NREGA software has been installed in all the ten Blocks of the district. All the Job cards have been computerized and issuance of E-muster roll has also been started.

A training session in progress

Web Conferencing facility at all SDO Headquarters - Facilitates District Collector to immediately interact with SDO or groups of SDOs.

Video-Conferencing Services - It is being provided on regular basis to organise Video Conferencing with respective department heads/Chief

> **I congratulate the entire District Unit of NIC Pali under the able leadership of Sh. Anil Purohit, DIO who is actively involved in new initiatives taken by District Administration.**

Mr. Niraj K. Pawan
District Collector

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Zunheboto : Providing ICT based Services & Support in Nagaland

Among the six districts of the Nagaland state, Zunheboto is situated in the middle bounded by Mokokchung in the East and Wokha district in the West. Tizu, Doyang and Tsutha - the three important rivers of the district are source for hydel power generation and terrace cultivation.High hills spread over many areas of the district varying from 1000 to 2500 metres but most people live between 1500 - 2000 metres altitude. ZBTO, the district Hq. is 1875 mtrs. above sea level. Most of the population reside in rural areas.

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edited by
Prashant Belwariar

NIC Zunheboto is the nodal centre for providing ICT based decision support & services to the district administration. Various e governance projects undertaken by the centre are manifestation of the services and support provided by the district administration for the benefit of the citizens. Internet facility is provided through leased line apart from Local Area Network setup which acts as an extension of NIC Network.

District Website: The district website http://zunheboto.nic.in designed and developed by NIC district centre, gives detailed information about the district pertaining to agriculture, tourism, topography, employment, schools etc. The district profile, telephone directory of officials and photo gallery are of special interest to the visitors. The link to Community Information Centre (CIC) opens up vast repository of information not only for the state but for the whole of north east.

Video Conferencing Facility: VC facility in the district uses leased lined connectivity. The facility has helped the district administration come closer to the state capital - Kohima which facilitates in reviewing and implementation of various developmental schemes in the district. The facility assumes much greater significance and importance considering the tortuous terrain which can only be surmounted by such communication facilities.

IMPORTANT ICT-BASED SUPPORT & SERVICES

Inner Line Permit (ILP): Under the Eastern Bengal Regulation Act of 1873 and Government of Nagaland Notification No.REV/T-9/91, any person who is not a local inhabitant and desiring to enter into Nagaland requires an Inner Line Permit (ILP). ILP Cell set up at Zunheboto in Deputy Commissioner's Office provides support to the administration

zunheboto.nic.in

through the ILP software with regards to registering new applicants or renewal of the registered applicants under the aegis of the district centre.

District Transport Office Computerisation: The VAHAN and SARATHI software is implemented at the District Transport Office for registration of vehicles and issuance of driving Licenses respectively. The provision of issuing Driving License and Vehicle Registration on Smart Card

A working day at District Transport Office

had been incorporated. In order to run VAHAN and SARATHI software smoothly, the centre gives all technical support like updating to new version, training etc.

Tele-Education Project: Under the project the Government Higher Secondary School, Zunheboto was supported in organising the Tele-education crash course in recent years. Online registration of students is operational for proper delivery of study materials to the students of the school in Zunheboto.

MGNREGA: The district administration is fully supported in implementing the MNREGA software both offline and online to effectively monitor the scheme's status, Job creation and employment generation activities.

AGMARKNET: The Agriculture Marketing Network software has been

successfully implemented in the District involving entry of quantity and rates of different essential commodities available in the market. The APMC Chairman and staffs have become quite conversant with the AGMARKNET software. The centre monitors the project and provides training to the APMC staffs on the AGMARKNET software.

General Election Support: Thinking of assembly election without the support of NIC is a thing of past. The software fully meets the Election Commission of India guidelines regarding randomization of polling personnel, electronic voting machines, deployment of personnel, counting of votes etc. The final transmission of election results using high speed state of art NICNET highlights the strong national data communication network established by NIC. The services, assumes high importance for the district administrator during such exercise.

E-Courts: It's an ICT initiative in the judiciary in order to strengthen the functioning of the Courts. The "Judiciary Monitoring System" enables registration of court cases, allocation of the same to the appropriate courts on the basis of constitution prepared by the honourable courts, preparation of cause list and uploading the same along with the judgement on web. Setting up of server room & Judicial Service Centre at the district court is in progress.

Other Projects: Various e-Gov Projects like Integrated Disease Surveillance Program (IDSP), CONFONET etc. were successfully implemented at the District. The newly launched National Animal Disease Reporting System (NADRS) is in progress at three Blocks of the District.

SH. T. KIHETO SEMA
NCS, Deputy Commissioner,
Zunheboto, Nagaland

The NIC has been doing commendable work in the district with pro-active approach in implementing various e-Governance projects. NIC Zunheboto is fulfilling its assignments at transport, MGNREGS Project, Tele-Education and other government department as well as providing technical support. The extension of the NIC Network helped the PS to DC, ADC, SDO, EAC's, DTO with internet facility
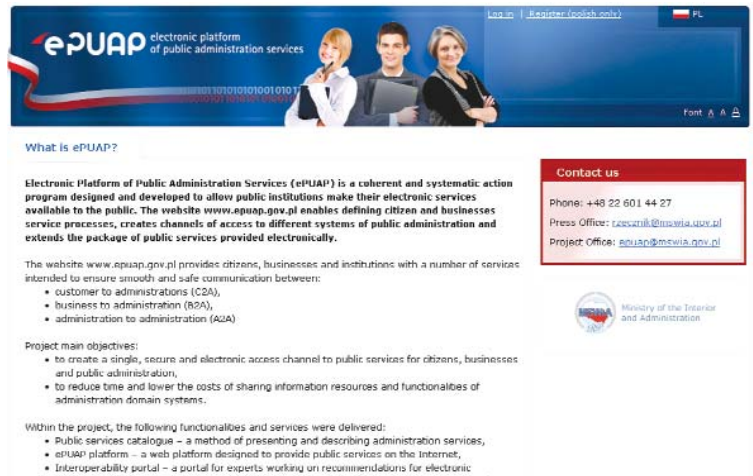
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Government Services Portal: Poland

Electronic Platform of Public Administration Services (ePUAP), better known as 'Gateway to Poland' has been launched for citizens' convenience to use the portal wherein facilitating the provision of eGovernment services for public entities.

The ePUAP is the first platform aiming at electronic implementation of general public tasks. The prime objective of ePUAP is its use as a platform on which public institutions develop, and then share electronic communication channels with its environment, constituting in particular entrepreneurs, citizens and public institutions. Public institutions are free to select available system services. They may use a single service of a number of selected ePUAP services.

The design and implementation of ePUAP is mainly intended to develop a uniform electronic channel, safe and fully compatible with legislation, to ensure access for the citizens, entrepreneurs and other public administration units to the public administration services. On the other hand, substantially reduce accessibility time and costs of IT resources, as well as public administration domain systems availability for public task implementation processes for all public administration units; this in particular applies to the access to services and resources of so-called base registers.

ePUAP provides a general description of the services to be provided by the government. All the services provided by the government is made available via a directory of life events which lists important steps of citizens' daily lives (e.g. obtaining a driving licence, building a home, etc). The portal also provides the users a free secure electronic signature backed by a qualified certificate, as required for most of citizens/companies' contacts with the Public Administration.

For information: http://epuap.gov.pl/

Electronic ID through Mobile Phone: Estonia

A new service, Mobile-ID has been launched in Estonia. Mobile-ID is a development of the traditional e-ID card based authentication and digital signing via one's mobile phone; the phone's SIM card becomes a proper ID document just like the e-ID card.

Electronic ID allows the identification and digital signature using a mobile phone of the user. Cell-ID certificates are valid for three years and application for identity cards is required.

Using the Mobile ID, a person can make everyday banking transactions, submit an income tax declaration, buy a bus ticket, give a digital signature, buy medicines with a prescription, and others.

For the first time in the world, Mobile-ID can also be used for electronic voting in elections. Exclusively on mobile phones to e-elections, however, one can not vote besause it requires a computer connected to the Internet. Card reader and special software is needed to install a computer, cell phone with the SIM card performs at the same time, as soon as the identity card reader starts functioning.

For information: http://id.ee/

National Archives Directory: United Kingdom

National Archives Directory launched by United Kingdom is the first ever public sector directory of commercial services and solutions to help secure the long-term survival of digital information.

As part of a project to safeguard its digital public records, the National Archives has developed the Digital Continuity Framework. The framework provides access to guidance that can help public sector bodies understand and manage their information. The services and solutions in the framework include data conversion and migration services, data storage consultancy and digital archiving solutions.

The Digital Continuity Framework is available to anyone in central government or the wider public sector. To make public sector operate transparently, legally and accountably keeping information usable is a challenge in this digital age. That's why, Digital Continuity Framework was formed to give the public sector easy access to the technical tools and services that can help them to use their information in the way that they need, for as long as they need for better governance.

For information: http://nationalarchives.gov.uk/
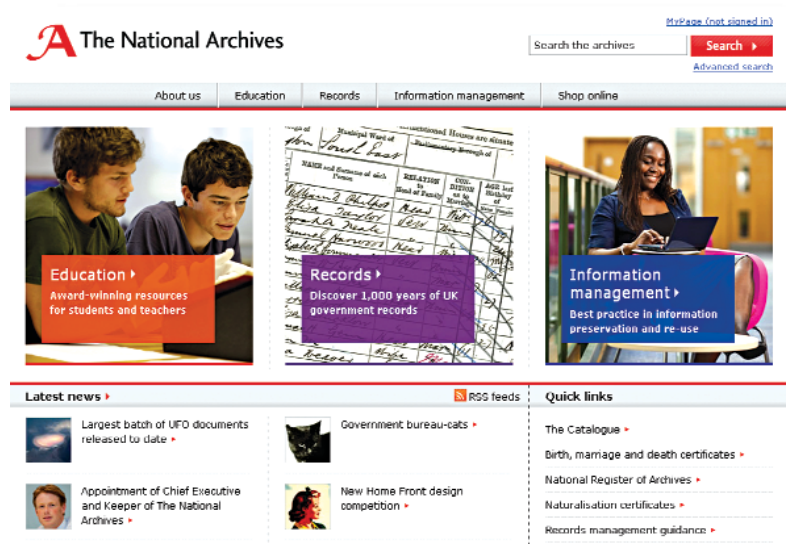
Citizen Card: Austria

The Citizen Card, an electronic identification concept launched in Austria has been instrumental in government to citizen services. Now, people use it for identifying themselves by digital means to a public authority. It allows them to be uniquely identified and authenticated where required by law.

The Citizen Card contains a qualified electronic signature that makes it possible to sign forms or contracts which normally requires a personal handwritten signature.

The card is available in many different formats, since it does not depend on a particular type of technology and does not require one specific type of card. In most cases, the carrier medium is a chipcard (such as the e-Card). It is essential that the citizen card contains a qualified electronic signature and an identity link that contains the associated security data and functions, as well as any data on mandates which may have been granted.

Once the Citizen Card function has been activated on the e-Card using the Web service from A-Trust, it can be used immediately afterwards. No charge is taken for its activation and use.

For information: http://alt.buergerkarte.at/

Compiled by: INFORMATICS TEAM

National Knowledge Network (NKN)
http://nkn.in/

The launch of NKN website is a significant step towards ushering a knowledge revolution in the country and is poised to provide unified backbone to all knowledge related institutions in India and cater a platform for exchange in information. NKN is connected to 110 institutions and aims to accomplish 1500 institutions and organizations throughout the country. The visually appealing website facilitates access of information on India's knowledge sharing information structure; stimulate research and details on next generation applications and services. The architecture of NKN has been designed to provide high reliability and scalability and is nicely described under the Architecture and Design corner. Apart from this the website publishes news, announcements and media gallery regularly. The NKN Brochure is also available for download.
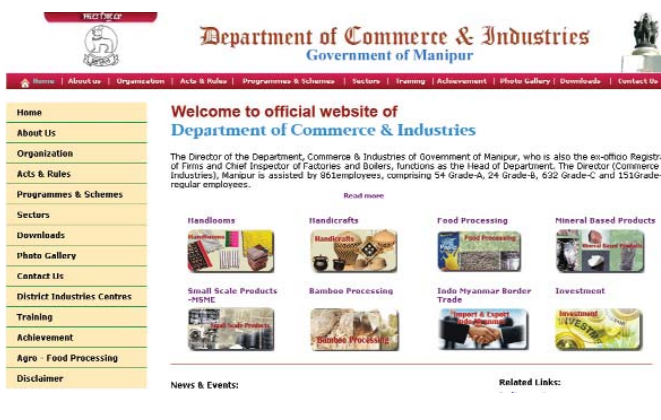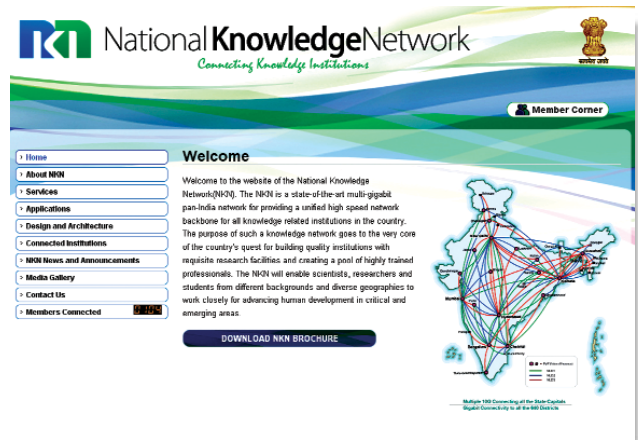
Department of Commerce and Industries, Manipur
http://dcimanipur.gov.in

Manipur is another North Eastern State that is capturing the limelight within the vicinity of Small Scale Industries. To highlight its growth and its prospects in the near future, the department of Commerce and Industries has gone online. The website highlights some of the major sectors where Manipur has captured attention on the business map of India. This content rich website renders vital information on programmes and schemes developed by the department to impart awareness to all the entrepreneurs of the state and unleash their talents. Besides, it also publishes downloadable applications and documents related to trainings and guidelines. References and links to external sites are also provided as an information service.

Cyber Appellate Tribunal, Govt. of India
http://catindia.gov.in

People in India are not well informed about cyber law related issues and seldom approach courts and tribunals for resolving their disputes. In a move to create awareness among the masses, the Cyber Appellate Tribunal (CAT), Government of India has introduced their official website in compliance with Government of India Website Guidelines. The bilingual website gives online information about CAT, its functions and powers, procedures of e-Filings, decisions related to judgment and current cases. Careers, latest news and Events are few standard sections updated regularly. Various external links are also provided and are easily navigable. The site has accessibility features for the differently abled users.

Contributed by: LOKESH JOSHI, NIC HQ
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In the NEWS

Hon'ble CM, J&K Launched e-Tendering portal for PMGSY

HON'BLE CM of J&K, Sh. Omar Abdullah formerly launched e-Tendering Portal http://pmgsytendersjk.gov.in for PMGSY under Public Works Department, on 3rd February, 2011, in a very simple and impressive function organized at Civil Secretariat Jammu. Among others following were also present on the occasion, Minister of State for R&B, Sh. Javaid Ahmad Dar, Advisors to the Chief Minister, Sh. Mubarak Gul and Sh. Devender Singh Rana, Chief Secretary, J&K, Agriculture Production Commissioner, Principal Secretary to the Chief Minister, Principal Secretary, R&B, Secretary Law, other Officers from R&B, PMGSY and NIC team represented by Sh. D. C. Misra, Sr. Technical Director, Smt.

NIC Team demonstrating features of e-Tendering to Hon'ble CM of J&K Sh. Omar Abdullah

Usha Sexana and Sh. Jaskaran Singh Modi, Technical Director.

The features of the e-Tendering were demonstrated to Hon'ble Chief Minister and other dignitaries present in details by NIC Team.

Jit Raj, Jammu & Kashmir

Inauguration of e-Procurement System of NIC (GePNIC), Ranchi

Sh. Arjun Munda, Hon'ble CM inaugurating the eProcurement system

TO BRING transparency, efficiency, reduce tender cycle time and provide equal opportunity in the procurement process, the Jharkhand government took a landmark decision on 17th December 2010 by launching the Government e-Procurement System of NIC (GePNIC) at Ranchi. Speaking on the occasion the Hon'ble CM. Sh.Arjun Munda said that his government is committed towards complete transparency in the bidding process and all the departments of the government will join the online system by the end of this financial year. Aware of the

major decision and apprehending reluctance in adopting the new system, he categorically stated that departments not adhering to the deadline will be severely dealt with.

The CM, formally inaugurated the system with the click of the mouse which instantly displayed the site http://jharkhandtenders.gov.in on the two large display screen to the excitement for the gathering which included Cabinet Ministers, Chief Secretary, Development Commissioner, departmental Secretaries, Dr. A. Mohan, DDG NIC, Smt. J R D Kailay, MD NICSI, Sh. Shahid Ahmad, SIO, Jharkhand and large number of officials & dignitaries. Deputy CM. Sh Hemant Soren also expressed his views and reiterated the decision taken by the government. Sh. A K Singh, Chief Secretary expressed similar views and hoped that all the departments will realize the importance of the system and will adopt it as soon as possible. Sh. K.S. Raghvan, STD NIC, Chennai gave a brief presentation about the features and benefits of the system.

The project is a joint effort of NIC / NICSI and initially nine major departments of the government has been selected to adopt the system. The ceremony ended with vote of thanks by Sh. N. N. Sinha, Secretary, Road Construction who has taken lead in implementing the online system. The presence of other secretaries of the departments showed the importance and priority of the government towards adopting the new system.

Prashant Belwariar, Jharkhand

eStepin : Online Token booking for Registration Offices, Maharashtra

eStepin inauguration at the hands of Hon'ble. Revenue Minister, Maharashtra Sh. Narayan Rane

ADIEU to queues, property registration is just a click away; endeavoring to add speed and transparency to land records/ property registration, the State Stamps and Registration Department has put in place, eStepIn, a computerised time slot booking system. Recently, Hon'ble Revenue Minister of Maharashtra Sh. Narayan Rane, inaugurated the Online Token Booking System -eStepin for Registration Offices. Now Citizens can book online time slots for registering documents 60 days in advance. The online citizen centric system not only helps citizens to get prior bookings without waiting in serpentine queues, it has also reduced the crowd at registration offices. The department also handles Mumbai and Thane circles and the office has seen 48,156 online bookings from Mumbai and 10,768 from Thane. "Since its initiation, Pune has seen as many as 34,774 bookings for property registrations at 20 sub-registrar offices. Citizens book online, take a print out of the receipt and go to the sub-registrar office that helps them to get their work done in 15 minutes," said a senior officer from the Inspector General of Registration and Stamps Department.

Sunita Pansare, Maharashtra

Inauguration of e-Service for Non-Government Pensioners, West Bengal

WORK flow based processing of Pension Files for Non-Government Pensioners including School Teachers and Non-teaching staff, employees of municipalities, employees of Panchayati Raj Institutions and those of other organizations has been going on for the past few years in the Directorate of Pension, Provident Fund and Group Insurance. e-Services for citizens are introduced now.

Sh. Samar Ghosh, IAS, Chief Secretary, West Bengal has inaugurated the e-Service on 20 January, 2011 for pensioners to provide status of such files during their entire life cycles. The service is available through the official website of the Finance Department (http://wbfin.nic.in)

Motiur Rahman, West Bengal

Sh. Samar Ghosh, Chief Secretary, inaugurating the service

Haryana Waqf Board goes On-line

ON February 7, 2011, Sh. Vivek Mehrotra, IAS, Secretary, Ministry of Minority Affairs (MoMA), Govt. of India inaugurated the Centralized Computing Facility (CCF) established at Haryana Wakf Board, Ambala (HWB) under the Project "Computerization of Records of the State Waqf Boards." It's being executed by National Informatics Centre (HQ) and sponsored by MoMA for all 30 State/UT Waqf Boards as per the recommendations of Joint Parliamentary Committee on Waqf Matters. He also took demonstration of WAqf Management System of India (WAMSI) Application particularly Registration Module and Digitization Module for Waqf Properties Transactions and preservation of Waqf Properties Archived Documents respectively.

In his speech, Sh. Vivek Mehrotra, appreciated the efforts of NIC and HWB to establish the CCF in record time and entered 200 Records in the Registration Module and also digitized 80 Records pertaining to Waqf Estates. There are total 12,493 Waqf Estates in HWB and each Waqf Estate has one or more Waqf Properties.

Sh. Samir Mathur, IAS, FC&PS Home, Govt. of Haryana & Chandigarh and Senior Officers of HWB & NIC Officers also reviewed the implementation of this Project at HWB level and discussed future plans. Project details are available on http://www.waqf.gov.in/ .

Naeem Ahmed, NIC HQ

Inauguration at HWB Ambala and Broadcast seen at New Delhi

Cadastral Maps Digitization & Integration of Bhu-Naksha & HALRIS

Naresh Gulati, FCR is reviewing and inspecting the lab in the presence of Commissioner Ambala, DC Ambala and SIO Haryana

ONE Cadastral Maps digitization Lab & Integrated Bhu-Naksha & HALRIS software solutions have been set up for 40 on-line villages of Ambala Tehsil at Mini Secretariat Ambala.

On 20th January, 2011, FCR Sh. Naresh Gulati has reviewed and inspected the lab. The complete demonstration of HARIS-HALRIS-Bhu Naksha linkage was given to all officers. After the demonstration, FCR has asked Commissioner Ambala Division Sh. Anil Kumar, DC Ambala Sh. Sameer Pal Srow & SIO NIC Haryana Sh. G.S.Bansal to start the implementation on pilot basis.

This project is one of the very prestigious e-Governance projects and complex in the nature as it provides the interface of Land Revenue Administration, property registration and linkage of textual spatial land records data in integrated manner on authenticated as well as authorization basis.

Poonam, Haryana

RTI-MIS Demonstration to PIOs & Appellate Authorities, NIC Punjab

A workshop on Awareness of RTI Act2005 was organized by Department of Information Technology and Administrative Reforms, Government of Punjab on 17th January, 2011 at Conference Hall, 4th Floor, Punjab Mini Secretariat. This workshop was inaugurated by Sh. Sarvesh Kaushal, Principal Secretary (IT & AR). Special Secretary (IT & AR), PIOs & Appellate Authorities from various departments of Punjab Government along with RTI Activists from Punjab attended this workshop. PS (IT) emphasised on computerisation of Government Departments at the earliest so that Departments can easily reply any query being raised under RTI Act.

Sh. Navneet Kukreja,SIO Punjab giving presentation along with Sh. Ajay Malhotra and Sh.Sanjay Gupta of NIC Punjab

On this occasion SIO Punjab, Sh. Navneet Kukreja made a presentation on RTI-MIS and demonstrated live RTI-MIS application. PS (IT) stressed on implementation of application in state government departments.

Vikram Jeet Grover, Punjab

Refresher Training for NIC Officials at Hanumangarh, Rajasthan

Training programme is under way

A FIVE day maiden refresher training programme on "Technological Aspects" of various NIC projects was organised at NIC Hanumangarh, Rajasthan from 31st Jan. - 4th Feb.2011. Sh. Vishwanath Sharma, DIO, Hanumangarh & PSA informed that "RDBMS concepts and MS-SQL Server 2005 by Sh. Sanjay Sharma, SSA, Jaipur. Sh. Ladesh Kumar, DIA, Jalore discussed .NET fundamentals." Technical aspects involved in developing SMS-integrated Applications were showcased with live demonstration. Parvinder Singh, DIA Hanumangarh talked about web development using open source technology and demonstrated application development using PHP/ MySql.

In concluding session, Sh. Bhanu Prakash Yeturu, IAS, Collector and District Magistrate, Hanumangarh appreciated the initiative taken by Smt. Indu Gupta, State Informatics Officer, Rajasthan for conducting this kind of event. He also appreciated the technical support being provided by the NIC in various e-Governance initiatives taken up by the district administration.

Chandan Sen, Rajasthan

Smart Card Based Projects in Government

Computer chip-embedded plastic cards that store and transact data, Smart cards, a new form of fast and effective transaction has been instrumental in providing better e-governance in India. Smart cards usually have multi-purpose lives, from being National ID cards to tools for driving licenses or calling on to a hospital. The moment you prefer to have a Contact-less Smart Card (CSC) or Smart Tag suddenly everyday life becomes easier and faster.

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INDUSTRY has long recognized its immense potential but its extensive use in government agencies has been a comparatively recent phenomenon. Keeping in view the immense potential of Smart Card, under the aegis of National Informatics Centre under Department of Information Technology (DIT), various development projects have been formulated and initiated to provide thrust to smooth governance. Some of the major projects currently underway include:

DRIVING LICENSE
The Government of India has issued guidelines for the introduction of Smart Card-based Driving Licenses (DL) and Vehicle Registration Certificate and e-governance facilities in various functions of the transport departments in all states of India.

Objectives of smart card driving license include providing security against illegal duplication and fake issuance, providing ease of handling to individual, and facilitating better law enforcement. Approximate Volumes are 200 to 300 millions with Provincials Governments as implementing agencies. So far Technology Standards are concerned, SCOSTA OS, Microprocessor based Card with contact interface and 64 K memory, and distributed personalization and issuance at regional offices are at work.

Security Systems Framework includes Symmetric Key based, Active Authentication, Symmetric Key based Access Control to Card Data, and Symmetric Key based Role Verification.

E-PASSPORT
E-Passports, also known as bio-metric passports, has been prepared with the objectives that include security against illegal data tempering, providing a mechanism to prove identity of document holder, and above all facilitating better law enforcement.

Approximate Volumes are about 100 millions whereas Implementing Agency includes Ministry of External Affairs. SCOSTA-CL based OS, and Microprocessor based contact-less inlay with 64 K memory are the technical standards of this project. Booklet Manufacture includes Government owned Security Press, Distributed personalization and issuance at regional Passport offices, and DG1, DG2, DG11 and DG13.

Security Systems Framework includes Passive Authentication, Basic Access Control, and PKI Framework compliant to ICAO PKD standards.

NATIONAL ID
The Multipurpose National Identity Card (MNIC), an initiative of the Government of India for creating a National ID in the form of Smart Card focuses on increasing national security, managing citizen identity and facilitating e-governance. It is desired to allow multiple applications integrated onto a single smart card. It also focuses on providing a mechanism to prove identity of card holder at field and establish the proof of citizenship, facilitating better law enforcement with better border management.

Being a national project, the approximate volumes is estimated about 1.2 billion. Registrar General of India under Ministry of Home Affairs is the implementing agencies in partnership with National Informatics Centre and Central Public Sectors. Technology Standards ranges from SCOSTA OS to Microprocessor based Card with contact interface and 64 K memory to Centralized personalization.

PKI based Passive Authentication, Symmetric Key based Active Authentication, Symmetric Key based Access Control to Card Data, and Symmetric Key based Role Verification come under best Security Systems Framework.

SOCIAL SECURITY (HEALTH INSURANCE)

Providing social security to the citizens has always been the prime concern of the government of India. In this connection, to provide better coverage, smart card has been introduced with an objective to provide a secure instrument for delivering Health Services to Rural and under privileged. To help Insurance Service providers in authenticating the beneficiary and their entitlement and providing ease of handling to individual is another objective of this project.

India, being a large country, the Approximate Volumes seems to be around 100 millions. Stake Holders could be counted as Ministry of Labour, Insurance Companies, and Provincial Government bodies. SCOSTA OS, and Microprocessor based Card with contact interface and 32 K memory are the technical feature of this project.
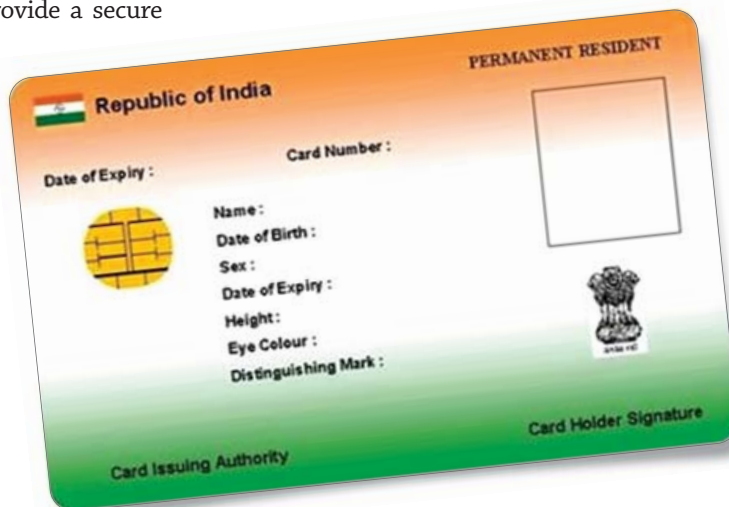
Distributed enrollment, personalization and issuance at grass root level

(roughly through 100 thousand village camps), Authentication and Transaction for service delivery at empanelled Hospitals with the help of a PC with Smart Card reader and finger print verification system are another features of this project. Security Systems Framework includes Symmetric Key based Active Authentication, Symmetric Key based Access Control, and Symmetric Key based Role Verification.

PUBLIC DISTRIBUTION

The introduction of Smart Card in Public Distribution System (PDS) has replaced the existing Paper based Ration Cards. The biometric Smart Cards carrying personal details and photograph of the card holder allow fare distribution of commodities, identification and verification of the right person through a secured mechanism.

The prime objectives of smart card based public distribution system range from providing a secure instru-

ment for delivering subsidized food and commodities to Rural and under privileged, to helping Government for effective monitoring the public distribution of subsidized food to entitled beneficiary and to establish an effective accountable mechanism to plug the distribution loop-holes and misuse of subsidy.

Approximate Volumes assumed are more than 100 millions. Federal and

Provincial Governments, Public Distribution Department are the pioneer implementing agencies. Technology Standards include SCOSTA OS, Microprocessor based Card with contact interface and 64 K memory, Distributed enrolment, Centralized Personalization and issuance, and Authentication and Transaction for service delivery distribution outlets with the help of a PoS device.

Security Systems Framework includes Symmetric Key based Active Authentication, Symmetric Key based Access Control for card data, and Symmetric Key based Role Verification.

MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (MNREGS)

MNREGS, introduced by Rural Development Department, Government of India under the National Rural Employment Guaranteed Act-2005 focuses on the enhancement of livelihood security of the household in rural areas of country by providing at least one hundred days of guaranteed wage employment in every financial year.

Biometric Smart Cards have been provided for identification, attendance, verifications and wage disbursement. The nationalized banks have also initiated in the state government's project for Smart Card payment system (electronic benefit transfer) for National Rural Employment Guarantee Act (NREGA) and social security pension (SSP) beneficiaries. Under this project the beneficiaries operate their Saving Bank accounts using smart card at remote locations.

The standard Contactless Smart Cards used for NREGS are SCOSTA compliant with 32k/40k memory size.

Building the Knowledge Society on the Internet
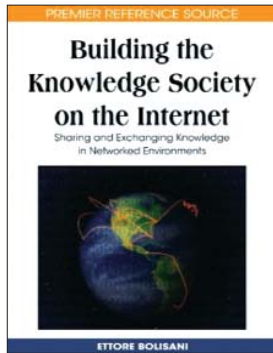
Title: Building the knowledge Society on the Internet
Author: Ettore Bolisani
Publisher: IGI Global USA
Year: 2008

Knowledge constitutes a valuable intangible asset for creating and sustaining competitive advantages and in today's networked societies, the capability to exchange, transfer, and share knowledge serves as a key factor for social and economic success. Knowledge sharing activities, are generally supported by knowledge management systems.

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THE book **"Building the Knowledge Society on the Internet: Sharing and Exchanging Knowledge in Networked Environments"** by Ettore Bolisani presents a variety of viewpoints, approaches, and indications of the shared elements intended as the foundations of an emerging and fascinating multidisciplinary field and also proposes a vast panorama of research on the topic.

The **"Knowledge Sharing: Interactive Processes Between Organizational Knowledge-Sharing Initiative and Individuals' Sharing Practice"** offers an alternative approach to knowledge sharing. It is argued that to understand employee knowledge-sharing behaviour, one has to understand the interactions between organizational context and individuals' sense-making processes before achieving success. Studies in knowledge sharing are reviewed before the missing organizational factors are pointed out. Established theories are introduced where the influences of both formal and informal organizational factors on employee knowledge sharing are elaborated. **"The Centrality of Team Leaders in Knowledge-Sharing Activities:** Their Dual Role as Knowledge Processors", focuses on the extraction of accurate knowledge embedded in various Internet repositories and the effective sharing within organizational team, by exploring the central and dual role of team leaders in their capacity as knowledge processors, functioning both as "sources" and "recipients" of net-based knowledge. The **"Knowledge Sharing in Virtual and Networked Organisations in Different Organisational and National Cultures"** provides mechanisms for understanding the potential for conflict, for knowledge sharing, and

building of trust among culturally diverse team members. Guidelines for successful knowledge sharing in the global environment are developed providing indications of the expected benefits for the organisation and the individuals involved. The **"Towards an Implicit and Collaborative Evolution of Terminological Ontologies",** concerns the importance of personal terminological ontologies, especially of a low-bias approach to their implicit and collaborative evolution, which contributes to the transformation from the information to the knowledge society. **"Computer-Mediated Knowledge Sharing",** examines the computer-mediated knowledge sharing mechanisms and proposes a typology based on media richness and social presence characteristics that can serve as a preliminary conceptual basis to select the most appropriate channel. "**Understanding Knowledge Transfer on the Net: Useful Lessons from the Knowledge Economy"**, examines contribution of the current studies of the Knowledge Economy to give clearer understanding of KM and, particularly, of Knowledge Transfer processes that are a central element of KM. **"Knowledge-Sharing Motivation in Virtual Communities"**, explores the motivation of virtual community members in regards to knowledge sharing and understands the underlying factors of such sharing behaviours. It also presents a conceptual model to illustrate the relationship between transaction cost, expectancy value, and knowledge sharing. **"Opportunities and Obstacles to Narrow the Digital Divide:** Sharing Scientific Knowledge on the Internet", examines key factors affecting the dissemination of scientific information and current challenges posed by the open-access initiative of making scientific information freely available worldwide.