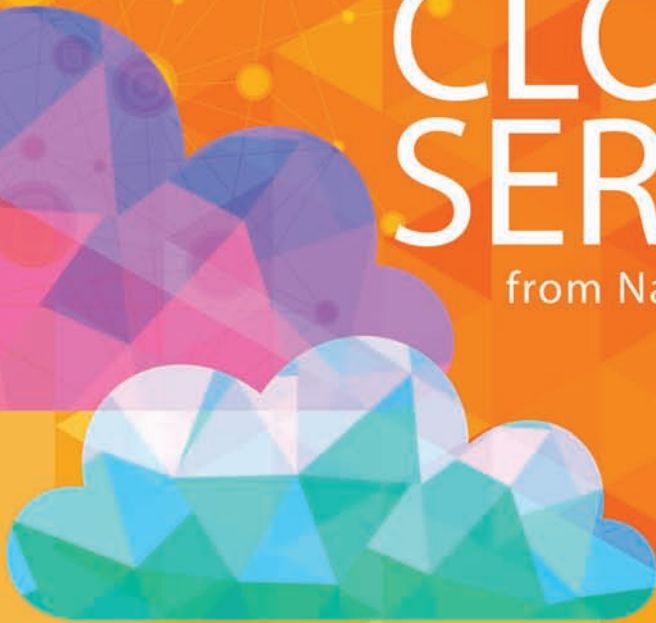


Informatics

CLOUD SERVICES

from National Informatics Centre



- ▶ Stores & Supply Management System
- ▶ Open Government Data (OGD) Platform
- ▶ DHARANI - Digitally Signed Land Records of Goa
- ▶ Role of Metadata and Data Standards in e-Governance
- ▶ AppBuilder - A Tool & A Framework
- ▶ ICT in Districts: Sirsa, Pakur, Kannur & Shimla

INFORMATICS

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EDITORIAL



Launch of Cloud Services by NIC is a major milestone in the timeline of e-governance infrastructure in India. Set

up with the state-of-art technologies and powerful infrastructure, National Cloud has transgressed some of the existed conventional boundaries to provide seamless services for eGov applications. NIC Cloud Services shall enable Government Ministries and Departments to have flexibility in

availing and scaling the data centre resources as and when required leading to resource optimization and a lot of cost savings. Our lead story this time focuses on National Cloud Services launched by NIC under the Meghraj initiative of the Government.

In our E-Gov Products & Services section this time, we bring out some of the significant ICT initiatives implemented in diverse sectors and geographical spheres of the nation. ICT in Tribe Certificate Verification Process in Maharashtra, Stores & Supply Management System, Regional Electronic Clearing Service (R-ECS) in Pension Payment System, Open Government Data (OGD) Platform, e-Tourism, DHARANI are the highlights of this section.

Technology Update section accentuates on the relevance of AppBuilder, Use of Metadata and Data Standards in e-Governance, Failover Clustering for databases and Leveraging Emerging Technologies in Property Registration & Land Records domains.

In our District Informatics section, we highlight the exemplary e-governance initiatives in the districts of Sirsa, Pakur, Kannur and Shimla. Our regular sections- International e-Gov Updates, Cyber Governance and In the News would apprise you on the latest developments in e-governance arena.

Happy Reading

NEETA VERMA

We invite your valuable articles and write-ups for Informatics.

Please send your inputs/contributions to our State Correspondents or else directly to us at the address below:

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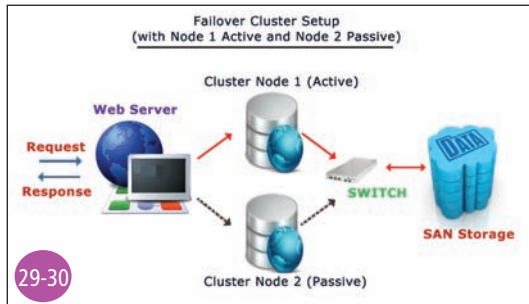
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NATIONAL CLOUD SERVICES OF NIC

With the emergence of Cloud computing and its power to foster efficiency in Governance, there has been a paradigm shift in the setting up and management of ICT services in Indian Government. Through Cloud services, the provision of ICT infrastructure to various departments and organizations of the government can now be cost effective, agile, sustainable and rapidly deployable for quicker services delivery.



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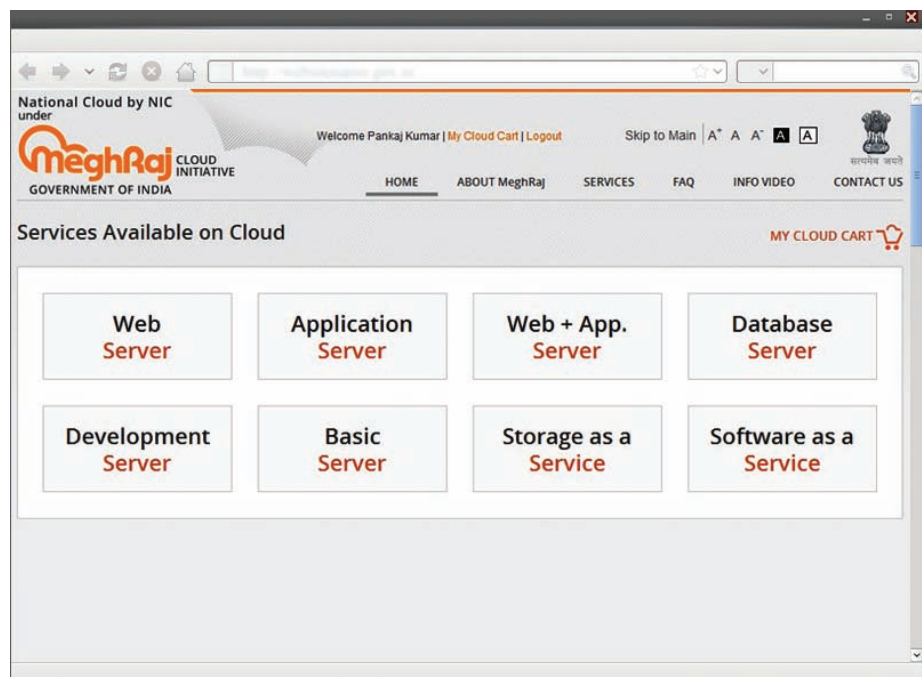
Cloud computing has a large role in optimizing Data Centre resources. One of the major advantages is that the Departments of government need not have to pre-allocate extra infrastructure and resources for unforeseen requirements. There is now a flexibility to scale infrastructure resources based on current need. By this, the user departments need to bother less on resources allocation and focus more on strengthening application systems to deliver better services. The freedom to choose and avail the optimum ICT infrastructure resources strengthens user confidence and benefits cost efficiency.

NIC, being a frontrunner in facilitating e-Governance initiatives of the

government, has setup a state-of-art and secured Government Cloud under the umbrella of MeghRaj. NIC Cloud Services spans over the latest ICT infrastructure built at the National Data Centres. Through the portal <https://cloud.gov.in>, the Cloud Services are now available for all ministries and departments of the Centre and States.

MEGHRAJ

To harness the advantages of Cloud Computing, Government of India has embarked on a highly significant and ambitious initiative called "GI Cloud". With a personalized name 'MeghRaj', this initiative is focused on activities, establishment of various components and mechanisms of governance to ensure successful implementation of Cloud in Government. One of the key objectives of GI Cloud is to ensure optimum allocation and utilization of infrastructure resources and enable



swift development and deployment of e-Governance applications.

NIC CLOUD SERVICE OFFERINGS

National Cloud is built using state-of-art technology and infrastructure, secured with efficient design with features such as generic architecture, usage simplicity apart from having various self-service portal components.

Currently, the Cloud Services offered are Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS) and Storage as a Service (STaaS).

Infrastructure as a Service (IaaS)

IaaS provides basic virtual compute infrastructure resources like CPU, Memory, Disk Storage attached to blank VMs allowing users to install OS, using ISOs, from scratch and customization. In this service, the users need to have legal licenses for OS and Application software as applicable.

Platform as a Service (PaaS)

PaaS provides pre-installed web and database servers so that users can publish and run webs application without botheration of server setup. The servers are pre configured and ready with basic security hardening. PaaS service can be availed for rapidly deploying servers so as to publish web applications by the users. The OS and Application Software licenses are provided by National Cloud (NC) as part of this service.

Software as a Service (SaaS)

SaaS provides on-demand software service. This is a software delivery model where the users need not be responsible for supporting the application or any components. The server infrastructure, OS and software are managed by cloud services. If the user owns a web application and legally eligible to distribute to other users, then delivery of SaaS can be made through Cloud Service.



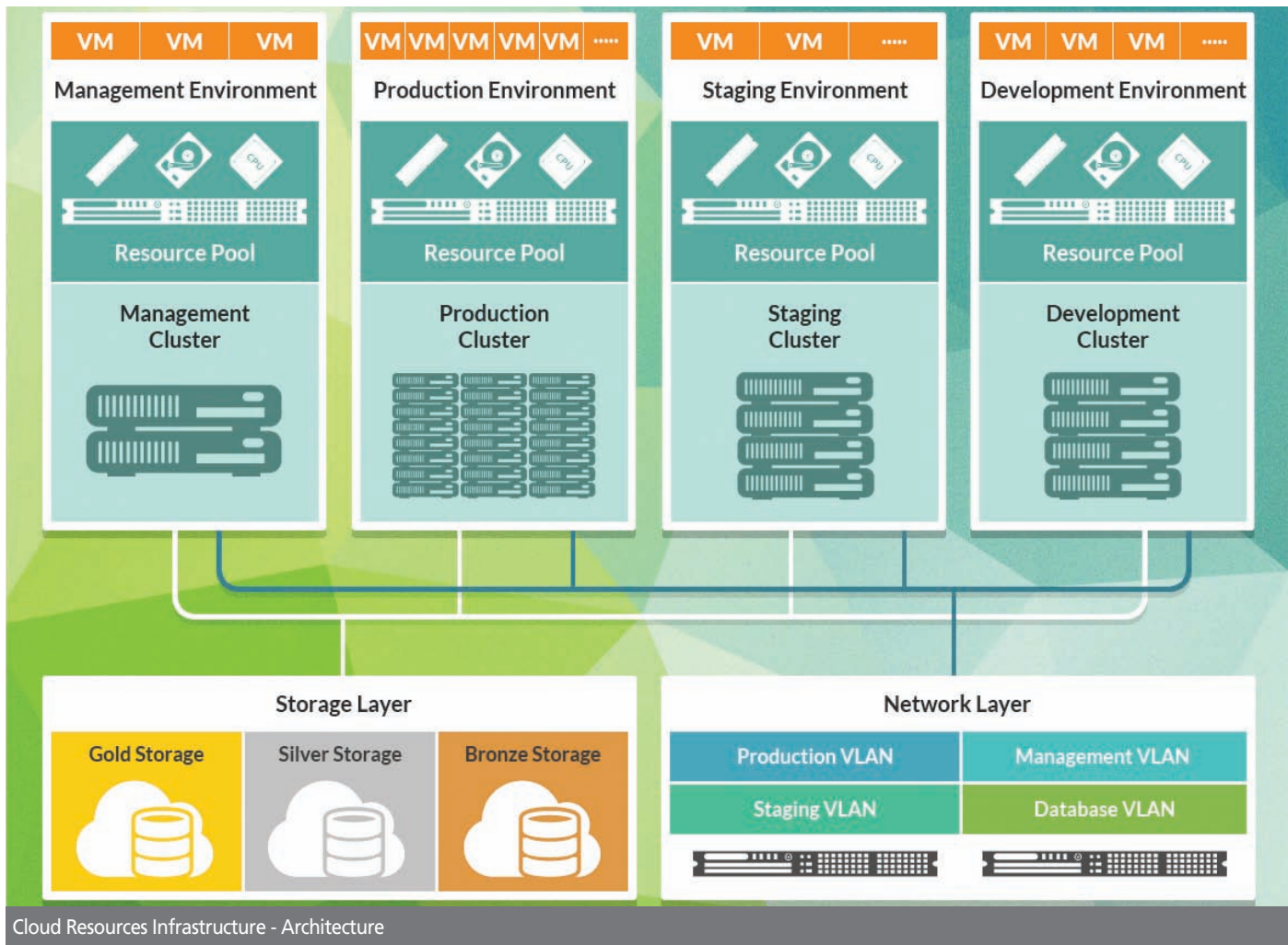
NEETA VERMA

DEPUTY DIRECTOR GENERAL, NIC

NIC has remained at the forefront in introduction of information & communication technologies to the government. Launch of first National Cloud by NIC under MeghRaj initiative of the Government is an important milestone in the history of e-governance infrastructure in the country.

National Cloud of NIC, set up with state of art technology, is secure by design & generic in architecture. To cater to variety of ICT requirements of government, a three tier ICT infrastructure is put up under the National Cloud to provide appropriate services with optimal use infrastructure & associated resources. Cloud Services are packaged in line with the requirements of Government Departments making it easier for them to make the right choice.

Launch of National Cloud by NIC shall facilitate departments to avail infrastructure on demand and scale up their resources any time. They need not spend their time & energy on long cycles of procurement of ICT Infrastructure. They can now focus on development, implementation & rollout of e-governance applications. Cloud shall also help government in innovating & introducing new models of delivery of citizen services.



Storage as a Service (STaaS)

STaaS provides need-based storage solution. This service provides excellent alternative to the traditional on-site and dedicated storage systems thus reducing the complexities of deploying and managing multiple storage tiers. STaaS can be used to mitigate risks in disaster recovery, enable long-term retention for records and enhance both continuity and availability.

To keep it easy for the departments, Cloud Services (IaaS/PaaS) have been packaged into simple offerings. The catalogue of Cloud Service offerings provide options for the users to choose from preconfigured web, applications and database servers with

Commercial/Open Source System Software or Blank Servers and Storage. Application Systems those are generic in nature for the use of multiple government organizations are offered under SaaS model.

SALIENT FEATURES

- Servers provided under PaaS service are preinstalled with software and hardened as per government security regulations. These are simple, ready to use machines and which are made to go live by installing application software.
- Designed in line with project life cycle of any e-gov project. Various phases of a project like development and testing stages requires different

requirements of infrastructure in terms of security as well as network. Cloud has dedicated environments for the development, staging and production to meet these needs.

- Provides various models of tiered storage namely Gold, Silver and Bronze provides right type of storage for a particular application and thus optimizing cost and time involved.
- Provides a complete workflow system to assist and guide the user step-by-step for the activation of any e-gov application with accomplishment of various tasks such as Vulnerability Assessment (VA) of servers, Security Audit Status of any application, DNS entry etc.

- The Cloud provides framework to manage multiple projects by keeping the respective Cloud space separate along with allocation of certain resource quota.

- National Cloud is designed for multi-location Cloud. It has been set up completely at Data Centres in Delhi whereas in Hyderabad it is functional with certain limited capacity.

HOW TO AVAIL NIC CLOUD SERVICES?

Following are the procedures to avail the NIC Cloud Services:

- Visit the portal <https://cloud.gov.in> to apply and register for services.
- On successful registration, users will receive acknowledgement on their email.
- On satisfying eligibility conditions, users will receive a “Welcome Mail” for Sign up. Login for signup is allowed only with GoI email accounts.
- On successful signup, users will receive T&C document to their email account. Users are required to download this document and submit the duly signed and stamped document to NIC Cloud Team through their concerned NIC HODs/SIOs.
- Once document is received the Sign up process is complete, users can then request for variety of Cloud Services being offered by NIC.

In the operation process of Cloud Services, each department is required to nominate a Cloud Coordinator. The Cloud Coordinator is then required to enroll on the Cloud on behalf of the respective department and then place requisition for various services. These include choice of web-server, database server, blank server etc. Subsequently,





the Coordinator needs to comply with the first four steps mentioned above. Further, he will be provided with “My Cloud”, which is a Cloud Dash Board over secured channel. The Cloud Coordinator has to set up all the required configurations. Using the Cloud Dash Board, maintenance operations can be carried out.

TECHNOLOGY & ROLL OUT

National Cloud (NC) is built using state-of-art-technology with a secure design, generic architecture and simple user interface through a self-service portal. While designing, it has been ensured of not having a single technology vendor at the back end to avoid any vendor-locking situation in future.

National Cloud has been designed to be a multi-location Cloud. National Data Centre (NDC) nodes at Delhi and Hyderabad locations have been already added in the first phase, whereas NDC Pune and upcoming NDC Bhubaneswar would be added subsequently. All these nodes are made accessible through the common Cloud Portal over a highly secure channel using VPN.

SUMMARY

National Cloud Services ensure that the departments need not provision ICT Infrastructure in advance. The facility of rapid elasticity is made available to the individual projects while the pooling of resources ensures optimal utilization and cost savings for the government.

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ICT ENABLED TRIBE CERTIFICATE VERIFICATION IN MAHARASHTRA

The ICT based solutions are evidently effective when implemented wholesomely for each and every process of an application. Therefore, state of Maharashtra, introduced ICT based solution to verify issued Tribe certificates in order to arrest malpractices and to ensure that benefits should reach the underprivileged communities. However, manual verification system often fall prey to nepotism and favoritism. To get rid of this, Online Tribe Certificate verification process has been introduced in Maharashtra.



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An applicant belonging to the Scheduled Tribe who seeks for the benefits from the reservation, needs to obtain the Schedule Tribe Certificate from the competent authorities (Tehsildar, District Magistrate, Sub Divisional Officer etc). The benefits of reservation – for the employment, education and election – are admissible for the backward category individuals in Maharashtra only if the respective Tribe Certificate is validated by Scheduled Tribe Certificate Scrutiny Committee(s) set up for the purpose. There are 8 Scheduled Tribe Certificate Scrutiny Committees (TCSC) in Maharashtra located at

Pune, Nashik, Thane, Aurangabad, Nagpur, Amaravati, Nandurbar and Gadchiroli covering all 35 districts of Maharashtra. The procedure for issuing and validating the Schedule Caste/Tribe Certificate is given in the CV Act 2000 of Maharashtra

With the advent of web technologies the status tracking mechanisms and verification processes have been simplified and it was decided to develop a web based workflow system with options to -

- monitor the pendency of the cases of the committees located in the different places.
- know the status of the case at any point of time by the committee staff as well as by the applicant/sponsoring agency.

The screenshot shows the TCVIS (Tribal Certificate Verification Information System) web application. The interface includes a header with the TRIF logo, 'TCVIS ver 2.0', and a 'LogOut' button. Below the header, there's a 'Case Registration' section with a 'Close' button. The main form area is titled 'Case Registration' and contains several tabs: 'Applicant Details', 'Current Address', 'Native Place', and 'Casetype Details'. The 'Applicant Details' tab is active, showing fields for 'Inward No.' (8699), 'Inward Date' (15/11/2010), and 'Old File No.' (NAN / EDN / 850 / 2010). Below this, there are sections for '(B) Applicant Details' with fields for 'First Name', 'Middle Name', and 'Last Name' in both English and Marathi. The English fields contain 'Sonali', 'Keshav', and 'Tamboli' respectively. The Marathi fields contain 'प्रथम', 'मधले नांव', and 'आडनाम'. There are also radio buttons for 'लिंग' (Gender) with options for 'पुरुष' (Male) and 'स्त्री' (Female). At the bottom, there's a section for '(E) Tribe/Caste Certificate Details & Issuing Authority' with a note to enter details in English and fields for 'First Name', 'Middle Name', and 'Last Name'.

Case Status Details Date 20/9/2009
Print Exit

Case ID 3-ST/2006/10058

Case Status: Pending For New Case - to be Acknowledged by the Committee

Committee & CaseID			
Committee	नाशिक	Old File Name	NSK/EDN/1936/06
Case Type	शैक्षणिक	Case ID	3-ST/2006/10058
Inward No.	6690	Inward Date	03/07/2006
Deadline	03/01/2007	Deadline Given by court	No

Applicant Details			
Full Name	पवार अभिजित रविंद्र	Gender	Male
Full Name (English)	Pawar Abhijit Ravindra	Birth Date	20/12/1988
Address	मु पो ता मालेगाव कॅम्प कॉरवा हॉस्पिटल मागे शिवपन्ना		
Tehsil	मालेगाव	District	नाशिक
Phone No.	Mobile No.	PIN	Email

Applicant's Other Details				
Native District	नाशिक	Tehsil	मालेगाव	Village
Mother Tongue	मराठी	Dialect	Marathi	

Tribe Certificate Details					
Tribe	ठाकूर	Certificate No.	ST/ST/1046/2005	Certificate Date	14/12/2005
Issuing Authority	SDO/SDM	District	नाशिक	Tehsil	मालेगाव

- generate the Standard MIS Reports timely and Query based reports as and when required.
- automate the workflow of tribe/caste verification process to achieve the above objectives.

PROCESS

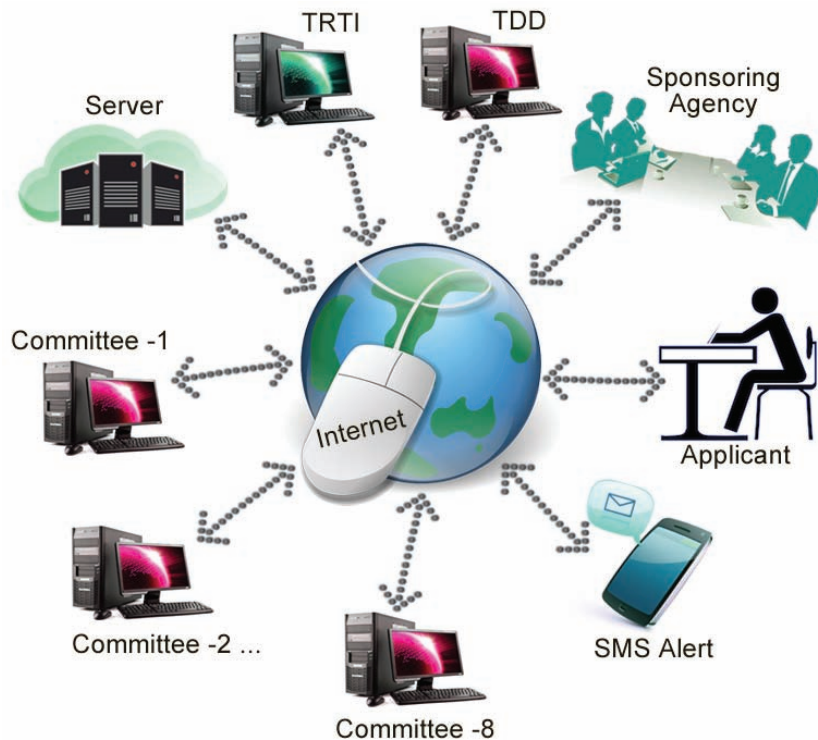
As the number of pending cases for verification started piling up and tracking those cases became tedious, the Tribal Research & Training Institute, Pune, responsible for the verification process decided to computerize the process. It consists of the following activities –

- An applicant desirous of getting a validity certificate applies to the Scrutiny Committee through the Sponsoring Agency in the prescribed format (Form – E).
- The case is registered/in-warded and acknowledged to the applicant and the sponsoring agency.

- The committee scrutinizes the documents submitted by the applicant, based on which the committee either issues a Validity Certificate or refers the case for further investigation to a vigilance cell.

- The vigilance cell submits an Enquiry report along with crucial documents containing caste/tribe details of the applicant or applicant’s relatives collected from the native place of the applicant.
- Based on the report, the committee may issue validity certificate or issues a Show Cause notice to the applicant and call for an explanation.
- On receipt of the reply to the Show Cause notice, the committee calls the applicant for a personal hearing.
- Based on the proceedings during the hearing, the committee takes the final decision on the case.

- If found valid, the committee issues Validity Certificate.
- If found invalid, the committee confiscates the original caste/tribe certificate of the applicant and issues



The System Architecture of the TCVIS

an Order of Invalidity to the applicant, the sponsoring agency as well as the authority who had issued the original certificate.

SOFTWARE FEATURES

- Use of Web based Open Source Technology
- Client uses only browser to use the application.

- UNICODE Compliant supports data entry in local language.
- Privilege based access to the system users (Committee Users)
- Authenticated level users of the system, password security with salted md5 encryption
- Committee work-flow has been automated.
- Case status can be viewed by applicant/ sponsoring agency online
- MIS and query based reports (Statistics + Details) can be generated at a click of button.
- Utilities for viewing/printing stage wise cases and detail report
- Access log of external visitors viewing case status, list of decided cases etc.
- Common/Centralized Database for all the committees
- Letters generated to the applicant such as acknowledgment letter, show cause notice, hearing letter in local language etc.

Table -Pre and Post Deployment Comparison

Pre-deployment	Post-deployment
Registers were being maintained in order to know the exact status of case.	There is no need to maintain so many registers, except the Inward and Outward Registers; that too with printout from the system.
Reports needed to be compiled manually and required efforts and time; there was no guarantee about the accuracy. The data manipulation was possible to show good result in reports.	The system generates MIS reports in no time with high accuracy. The factual information can be viewed, no chance to manipulate the report to produce forged results.
Applicants/Sponsoring agency had to approach the committees to know the status of their cases.	There is no need to come to TCSC for knowing the status of cases, which can be viewed on Internet 24X7.
The list of decided cases in the previous month has to be placed on the notice board of the TCSC. To view the list the applicants, one had to physically arrive at TCSC.	The list of cases decided in the previous month can be viewed on the Internet; there is no need to visit TCSC for this purpose.
The actual pendency of the number of cases was not known.	The pendency can be known at the click of a button.
Only Standard Reports to be sent were prepared. The ad-hoc Query based Reports required to reply to the Assembly questions, RTI, Agencies involved in the upliftment of weaker sections, which is time consuming and adversely affects day to day work.	The Standard and Query based Reports are now generated in no time, thereby saving time and human efforts.
Sharing of information among the committees for cases received was difficult.	With this system, it is possible to view details of any case of any committee
Monitoring individual cases was difficult as the information was stored in different registers.	Monitoring of cases is a simple exercise now days.
Applicant submitting an application for verification could not be validated for earlier invalidations.	It is possible to identify/check such cases at the registration stage itself.

TECHNOLOGY USED

The Open Source Platform Linux, PHP, Apache, and PostgreSQL were used to save the cost to the department and to avoid vendor locking. High end servers with 8 GB RAM connected to the Internet have been deployed for the implementation of the application. While at the committee level, clients with browsing facility are provided for smooth functioning of the interface.

RECOGNITION & AWARDS

The Project received the Skoch “Certificate of Merit” as one of the “100 Best ICT Projects” for the year 2011.

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STORES & SUPPLY MANAGEMENT SYSTEM

Information Technology based e-Governance tools have been changing the lives drastically in India. Even before that, it brings unimaginable innovative comfort to the administration in order to strengthen the public service delivery mechanism. Buzz around "change management" is noisier than the actual change that has been envisioned. Lal Bahadur Shastri National Academy of Administration went under the same upheavals in introducing more systematic methodology in managing its inventory and supply chain. An institute, which has been ham-handed due to old-fashioned management system, was found in a dire need of radical changes in its inventory management and supply chain. Implementation of e-Office in the institute inspired the much needed change in managing the inventories.



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O t was conceived that Manual Process of managing the stores should make a way for modern and commodious computerized system. LBSNAA prepared a comprehensive technical plan to implement the "change". Following are the prerequisites required for driving this change:

REQUIREMENTS

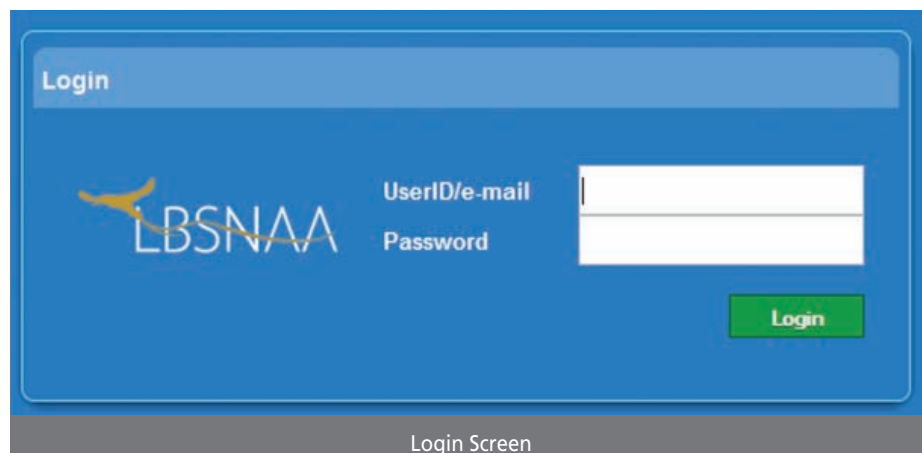
- Software should be based on client-server technology
- User/Employee can view the availability of the items in store, so that, s/he can demand a particular item if available, ensuring transparency in working of stores & supply.
- The working of the software should follow demand and supply model wherein a user/employee makes a requisition containing the required items which goes to the stores & supply section and then finally the officials of S&S issue those items demanded by the employee.

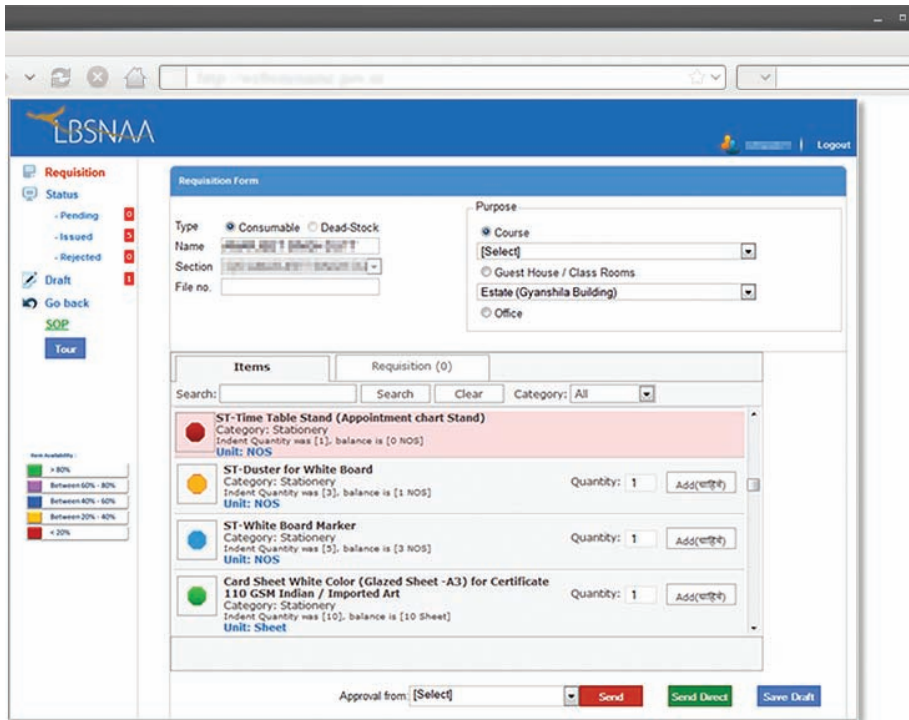
- User Interface must be as simple and effective that virtually there is no training required at both ends (User end and Administration end).

SOLUTION

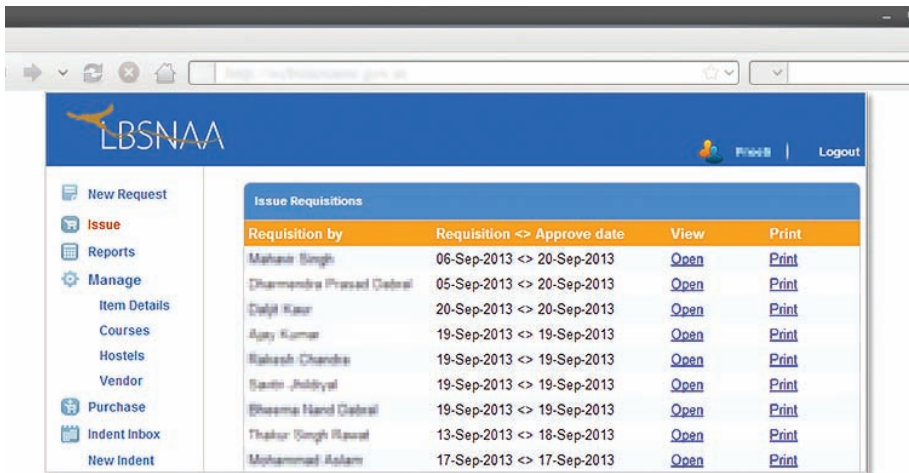
In order to make the interface as simple and comfortable as possible and to keep employees/users at ease in operating, a study was carried out to figure the requirements of the end-user by visiting employees. We also studied the old manual system of the stores and supply section to simplify the process of migration from old system to the new one. After completing the above process, we designed the prototype of the desired system according to the requirements studied.

In this prototype, we provided the very interactive and self-explanatory interface to the user. An interactive list of the items with the detailed information about the items availability along with the coloured indicators were provided to the users to enable quick and easy requisitions. This widget (front-end) is written in the popular JavaScript framework called jquery and the background processes are handled using the Dot Net Framework.

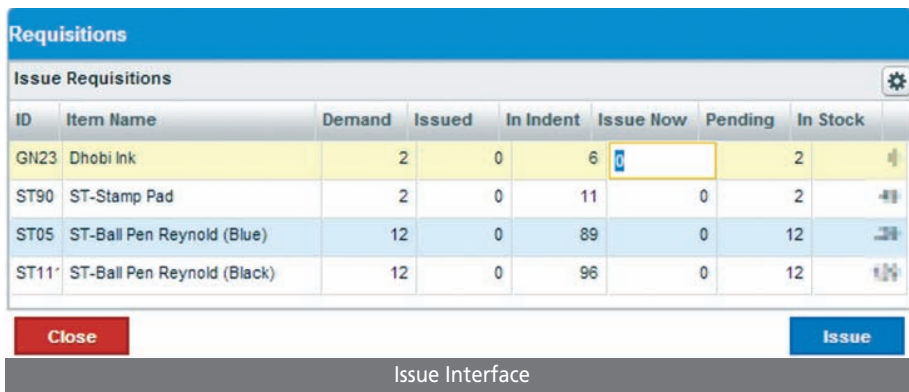




Requisition Interface



Received Requisitions



Issue Interface

WEB INTERFACE OF THE SOFTWARE

After successful login user will get the interface according to his/her role.

FEATURES

It was well understood that interface of this web based solution has to be simple and user friendly in order to oblige to the skills and caliber of the employees. Therefore, users need not to punch the name of the items in this interface. Instead, all the items are available in a widget, where users can search or filter according to item’s category and simply type the quantity of a particular item to add that item to the requisition. Colour indicators and details about the items improve the interactivity between the user and the system. In addition, a draft facility is provided to the user to make it more convenient for the user to request items with large number or recurring items. User can view the status of his/her requisition any time. A user can send the requisition to the higher authorities for approval.

At the admin/stores end, they will get a list of all requisitions made by the users. The facility of partial issuance of items is provided to the stores personnel to make the process simple flexible so that the non-available items can be kept pending for later issuing. An Excel like keyboard navigation feature and inline editing is added to the delivery interface to speed up the working of issued items process.

SCOPE

One of the major works to be done is the Dead Stock Module. For this QR code or BAR codes for the items are being considered. We are also considering the Database portability so that the system administrator can select the database as per his/her convenience. Also, there is a big scope for improvement and we are expecting the valuable suggestions from experts and the users.

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REGIONAL ELECTRONIC CLEARING SERVICE (R-ECS) IN PENSION PAYMENT SYSTEM: Ensuring Efficient Payment to Pensioners

The payment system is one of the most important elements of a financial system and Government always looks for innovative ways of making hassle-free payments to individuals. Since electronic means of payment are both safer and more efficient, efforts are being made continuously to effect a change in the mode of payment from paper to electronic. For the benefit of pensioners in the state of Manipur, the State Government in consultation with RBI, Guwahati contemplated introducing the Regional Electronic Clearing Service (R-ECS) in the existing Pension Payment System from August 1, 2013.



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BACKGROUND

The Reserve Bank of India (RBI) is doing its best to encourage electronic payment which will bring security and efficiency to payment systems thus rendering the whole process easier for banks. RBI has also encouraged all banks and individuals to embrace e-payment.

There are around 43,700 pensioners in Manipur whose saving accounts have been opened and are being operated in 10 banks with 48 branches. Payment of monthly pension to pensioners has been automated in Manipur from April 2007, and all the treasuries are crediting pension to the pensioners' account on monthly basis by generating a monthly advice list in soft copy (EXCEL format) and hard copy for the bank concerned. However, there has always been some delay in the disbursement of pension in the pensioners' bank account as there is a need for obtaining clearance from the sponsor bank (SBI, Imphal) by the destination banks. This process is slow and inefficient and there is always

inordinate delay at the destination banks in crediting the money into the pensioner's savings account.

It was against this background that the State Government of Manipur, in consultation with RBI, Guwahati contemplated introducing the Regional Electronic Clearing Service (R-ECS) in the existing Pension Payment System of Manipur with effect from August 1, 2013.

OVERVIEW OF REGIONAL ELECTRONIC CLEARING SERVICE (R-ECS)

R-ECS is a region-wise mode of electronic funds transfer introduced by RBI. R-ECS facilitates bulk transfer of money from one bank account to many bank accounts or vice versa using the services of a Regional Clearing House. There are two types of R-ECS i.e R-ECS (credit) and R-ECS (debit). The turnaround time for data submission by the user is two days prior to settlement date. Returns are provided on the next working day of the settlement date. R-ECS facilitates the coverage of all core-banking-enabled branches in a state or group of states and can be used by

117953001IMPHAL TREASURY		Pension Mar 14		79500200210929179284	0000027333000002633264900140382014
2279500200410	30802619437	MD. NIZAMUDDIN		7950020027953001IMPHAL TREASURY	111300424
2279502750310	0256010370585	KSH. GOURAHARI SINGH		7950020027953001IMPHAL TREASURY	111300073
2279500200510	20110107326	SMT. KH. (O) JAMUNA DEVI		7950020027953001IMPHAL TREASURY	5F15333
2279500200210	33227312824	MD. ABDUR RAHIM		7950020027953001IMPHAL TREASURY	111300691
2279502750810	0353010711982	SHRI. T. CHANDRA SINGH		7950020027953001IMPHAL TREASURY	111300108
2279502700510	0652011110757	S. (O) KHINU		7950020027953001IMPHAL TREASURY	111300797
2279500200310	30788413092	SHRI. S. MANGI SINGH		7950020027953001IMPHAL TREASURY	111300185
2279500251110	30398267906	SHRI. Y. NABA SINGH		7950020027953001IMPHAL TREASURY	111300549
2279500200210	20118607978	SHAKILA BANU		7950020027953001IMPHAL TREASURY	141300044
2279502750810	0353010514328	M. AMUTOMBI SINGH		7950020027953001IMPHAL TREASURY	111300161
2279500251210	30461271542	S. ACHHUBI DEVI		7950020027953001IMPHAL TREASURY	111300110
2279500200310	30769467354	MD. SAKSURAJAMAN		7950020027953001IMPHAL TREASURY	111300831
2279500200410	10383431317	A. TOMBA SINGH		7950020027953001IMPHAL TREASURY	111300635
2279502750310	0256010107588	Y. KENGBA SINGH		7950020027953001IMPHAL TREASURY	111300250
2279500200510	30959004900	R. K. (O) MANTOMBI DEVI		7950020027953001IMPHAL TREASURY	SM27389
2279500200210	30397479938	H. GILHARI SINGH		7950020027953001IMPHAL TREASURY	SM27679
2279500200410	30400787226	MD. SHAKKAMALUDDIN		7950020027953001IMPHAL TREASURY	111300786
2279502750310	0256010110997	N. YADMA SINGH		7950020027953001IMPHAL TREASURY	111300251
2279502750810	0353010113857	KH. SHAPUNGOU SINGH		7950020027953001IMPHAL TREASURY	111300162
2279500200310	10329810579	TH. HAITIABU SINGH		7950020027953001IMPHAL TREASURY	0000001257300
2279500251210	11746727786	TH. SHAKMACHA DEVI		7950020027953001IMPHAL TREASURY	111300117
2279500200510	33001695441	L. GOURAKTISHORE SINGH		7950020027953001IMPHAL TREASURY	SM30541
2279500200510	30428180642	Y. KONDUM SINGH		7950020027953001IMPHAL TREASURY	SM30908
2279500200410	30179324417	MD. FALLUR RAHAMAN		7950020027953001IMPHAL TREASURY	111300866
2279502750810	10624	N. DORENDRO SINGH		7950020027953001IMPHAL TREASURY	111300178
2279500200310	20060199403	SMT. M (O) ASHANGBI DEVI		7950020027953001IMPHAL TREASURY	SF14502
2279500251210	11746732956	MD. JALLALUDDIN		7950020027953001IMPHAL TREASURY	111300197

Sample R-ECS file

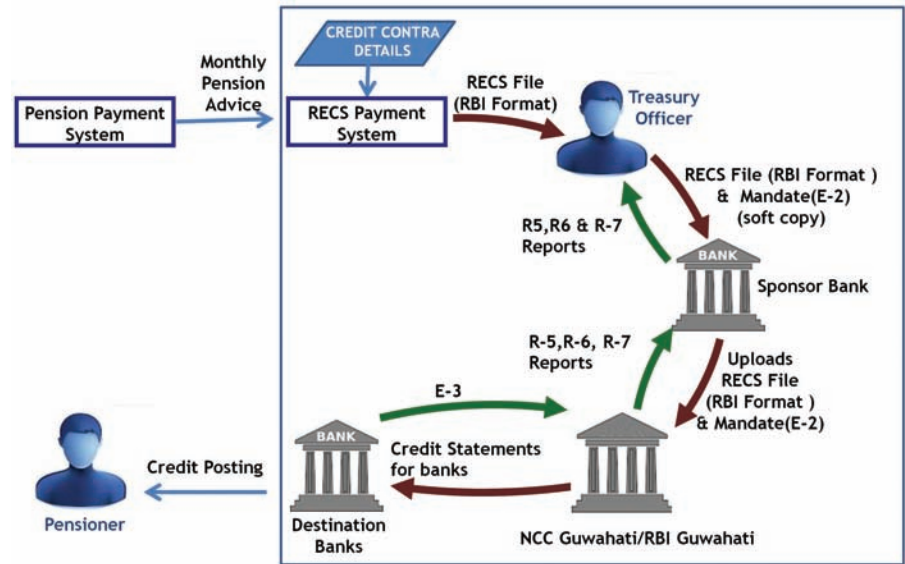
organizations within the state or group of states. The system takes advantage of the core banking system in banks. Accordingly, even though inter-bank settlements takes place centrally at one location in the state, the actual customers under R-ECS may have their accounts at various bank branches across the length and breadth of the state or group of states.

R-ECS PAYMENT SYSTEM

The R-ECS Payment System is a client-server-based software developed by NIC Manipur as an add-on to the Pension Payment System already implemented at all the pension processing treasuries of Manipur. Certain key information pertaining to Treasury Officer such as user number, user name, sponsor-bank branch sort code, etc. are collected from RBI using E-1 mandate and captured in the R-ECS Payment System.

The Electronic Pension Advice generated by Pension Payment System is ported to the R-ECS Payment System to generate a 156 column sequential file in RBI format containing header/credit contra and credit records. The credit contra is the first record in the file and contains the details of the user such as user number, user name, sponsor-bank sort code, the upper limit of the individual credit entry, the total value of all the credit items, etc., which acts as control information while processing the credit records. Certain key information in the credit contra record are repeated in all the credit records to make each credit record self contained with both credit and debit particulars of the transaction. Sample R-ECS file generated by R-ECS Payment System is as follows:-

This sequential file along with mandate E-2 is sent by the Treasury Officer to the sponsor bank (SBI Imphal) by email. The sponsor bank



Basic workflow of R-ECS Payment System

uploads this validated file through the secured web server of RBI. The National Clearing Center (NCC) of RBI, Guwahati retains the mandate (E-2), processes the data, arrives at the settlement, generates destination bank wise data/reports and makes available the data/reports through secured web-server to the destination banks.

The destination banks carries out posting to the individual accounts maintained on their different CBS-enabled branches on the same settlement date through CBS. The destination banks generate a file E-3 for returning the uncredited items to the NCC, RBI, Guwahati, which in turn generates a combined list of uncredited items for each branch (R-7). Item-wise Destination Ledger Report (R-5), Initial Sponsor Bank Settlement Report (R-6) and R-7 are forwarded by NCC, RBI, Guwahati to the sponsor bank for further submission to the Treasury Officer concerned as well as for reconciliation with the AG office.

IMPACT OF R-ECS

- No more enquiry at treasury and banks regarding credit of monthly pensions

- **Cost-effective** – Enormous savings in Treasury Office for printing, dispatch and reconciliation of paper documents
- Efficient payment mode ensuring that the pensioners get credit on the settlement date irrespective of the location of the bank in which the account is available
- Pensioner need not make frequent visits to the bank
- Banks running R-ECS practically converts to paperless handling
- Eliminates the need for customers to go to the collection centres/banks and stand in long queues for payment

CONCLUSION

With the adoption of the R-ECS Payment System, the monthly pensions are credited to the pensioners' saving account on the first working day in 29 CBS (Core Banking Solution) enabled bank branches (Participating Branches) in Manipur and other North-eastern states.

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OPEN GOVERNMENT DATA (OGD) PLATFORM

The National Data Sharing and Accessibility Policy (NDSAP) (Gazette notified on 17th March'12) was formulated to enable and establish open access to all data generated from Ministries, Departments and related Organisations of Government of India. The policy mandates these entities of the government to voluntarily release datasets in open formats which are updatable periodically. As a result, a plethora of valuable datasets are being released on the Open Government Data (OGD) Platform India - <http://data.gov.in>



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To implement the NDSAP, the National Informatics Centre (NIC), Department of Electronics and Information Technology (DeitY) has set up the OGD Platform (data.gov.in) as a single point of access to all government data resources such as datasets, apps and software tools. The key objective of the OGD platform is to democratise government data in order to foster transparency, citizen engagement and

public participation in creating ideas and innovations to strengthen good governance.

IMPORTANT PHASES IN THE TIMELINE OF OGD

- October 1, 2012: **Beta version launched** with the publishing of four datasets provided by the Ministry of Statistics and Programme Evaluation.
- August 8, 2013: The Union Minister officially **launched the portal**.
- February 18, 2014: **Version 2.0 of OGD launched** with unified interface

A screen interface of OGD Ver.2.0

enabling rich user experience for visitors, data providers and platform user community.

OGDP VER 2.0: KEY FEATURES

1. Well organized with cataloging of related and similar resources (Datasets/Apps) E.g.: Time series datasets of Consumer Price Index are grouped under a single catalog.
2. Maintains catalog and resource revisions with timestamp
3. Built with **Responsive Web Design concept**, enabling rich user experience equally on desktops, handheld and mobile devices. In such a design, the pages layout adapts to various viewport sizes (Elaborated in the October 2013 edition of Informatics).
4. Improved look and feel through sleek and clean Interface design
5. Enhanced features to search data resources
6. Application Programming Interfaces (APIs) to Query Datasets. Registered users have the option to generate their API Key to access data within datasets.
7. Registered users have the options to enable SMS and Email Alerts.
8. Additional options for searching/filtering resources by frequency, sectors, coverage etc.
9. **Resource Description Framework (RDF)** support for catalogs
10. **Enhanced Visualization Platform** and an exclusive **Visualization Gallery** for time series based browsing of **Visualization of the Day (VoDs)**
11. **Dedicated events section for contests/challenges** with Featured Apps section showcasing community-contributed apps
12. Separate instance for the demo site with role based credentials to have a first-hand feel of the workflow

INNOVATIONS IN THE PRODUCT:

- **Quick Response Code (QR)** – QR enabled catalogs available on data.gov.in can be captured and read through advanced imaging devices such as digital

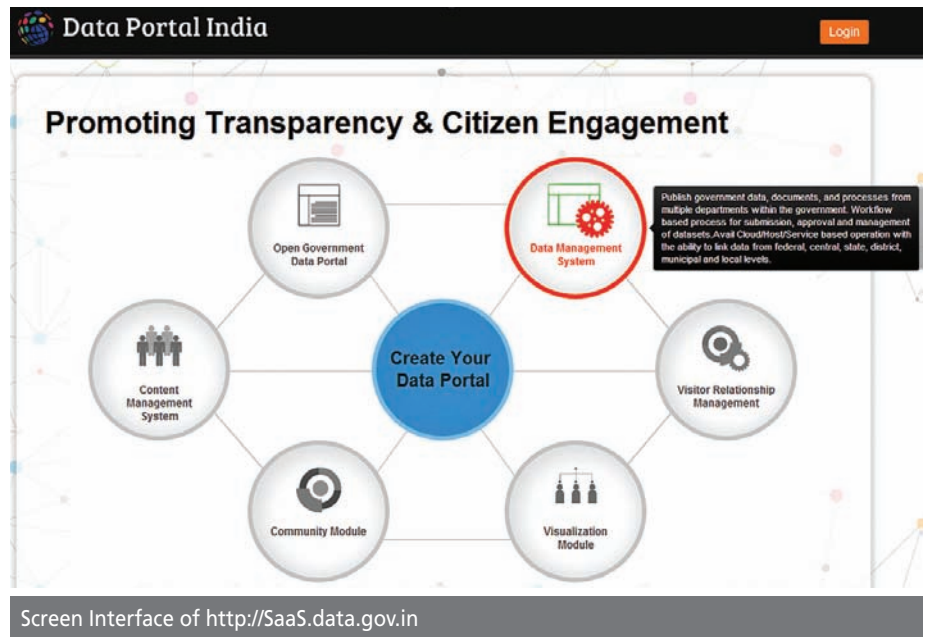


photo cameras and smart phones.

- **Metadata & Its Vocabularies** – Datasets are published along with a set of standard metadata based on Dublin Core. It uses controlled vocabularies on government sectors, jurisdictions, dataset types, access mode etc. Besides facilitating easy access to datasets, it would also be extremely useful in future for federation/integration of data catalogs for the entire country. These standard vocabularies are published on a dedicated website <http://vocab.nic.in> through Representational State Transfer (REST) and Simple Object Access Protocol (SOAP) based APIs/Web Services for further utilization for any of the e-Gov initiatives.

- **Citizen Engagement and Community Collaboration** – The OGDP has a robust enablement for citizen engagement, where the citizens can express their views and suggestions. Besides, they can also rate the datasets based on its Quality, Accessibility and Usability in a scale of 5. Embedding any dataset to a user's blog or website is also possible. One can write to the respective data controllers seeking information or

clarification on any dataset available on the platform. There is also a facility to suggest datasets/apps for publishing. The It gives an idea to the departments about the kind of data people seek and accordingly they can prioritize release of data. Moreover, citizens with specific interest areas can build communities on the Platform, which facilitates knowledge sharing through utilities such as discussion forums and blogs.

- **Tool for Intra-operability of Data formats** – APIs have been developed to convert the source datasets from original published format to five different formats. It helps developers to consume the datasets directly in their applications/tools.

- **Metrics** – Dashboard has been developed to give a bird's eye view of the contributed catalogs/resources on the platform, along with its popularity, usage and visitors statistics.

- **Visitor Relationship Management** – Feedback/suggestions received for any catalog/resource is forwarded to the dashboard of the data controller for further action.



Group photo with a winning team of the #OpenDataApps Challenge

NIC FELICITATES WINNERS OF #OPENDATAAPPS CHALLENGE; LAUNCHES 'OPEN GOVERNMENT DATA PLATFORM INDIA V.2.0'

The winners of the #OpenDataApps Challenge were felicitated by NIC, DeitY on 18th of February 2014 at the SCOPE Convention Centre, CGO Complex, New Delhi.

Cash prizes of ₹ 1,00,000 each to the three winners and ₹ 50,000 each to the three runners-up were awarded and Certificate of Merit were awarded to the finalists. Entrepreneurs, Innovators,

Start-ups, Developers, Civil Society and IT industry were invited to create unique, innovative and useful Apps for cross platform and multi devices using Open Government Data. The devices and systems ranges from Smartphones, Tablets, Web, SMS to Voice based applications. The important objectives of this initiative were to encourage data-driven innovations and engage start-ups & developer community to involve and build a healthy open data ecosystem.

Of the 331 proposals received from all

over the country, 99 completed apps made for various operating systems viz. Android, iOS, Windows, SMS etc. on sectors such as Agriculture, Postal, Governance and Health were evaluated to shortlist 20 finalists for further deciding the challenge winners.

Details of the #OpenDataApps Challenge finalists can be referred at http://data.gov.in/sites/default/files/OpenDataApps_challenge_finalist.pdf and <http://data.gov.in/event/opendataapps-challenge>.

PROCESS INNOVATION - SOFTWARE AS A SERVICE (SaaS)

As per NDSAP, the government entities are required to publish their data resources on the OGD Platform India (data.gov.in). Now, the State Governments, District Administrations, Municipal Corporations, Public Sector Undertakings apart from entities & projects of government can also have personalised OGD Platform. This platform is also offered through Software as a Service (SaaS) model to set up customized data portal according to any specific requirement. Besides providing technical assistance, NDSAP-Programme Management Unit (PMU) also offers infrastructure support for hosting and maintenance to government entities for active implementation of NDSAP.

The OGD Platform is being offering any or combination of the following services:

- The Entire Platform with dashboard on Analytics, Metrics, Visitor Statistics
- Any of the Modular Components – Content Management System, Dataset Management System, Visitor Relationship Management System, Community Management System
- Visualization Engine Service

As per the requirement of the Government of Maharashtra, the entire platform was offered to setup Maharashtra's State Data Portal (<https://data.maharashtra.gov.in>). The OGD Platform V-1.0 has also been offered to the African countries such as Ghana and Rwanda to develop their

National Data Portals. The OGD Platform V-1.0 code base has also been used to deploy NIC App Store, a repository of various applications developed by NIC.

The OGD Platform India, <http://data.gov.in> features advanced search options for government's data resources and various data usages. The platform is also intended to help various government entities to streamline their data gathering and processing procedures. This is a step towards promoting innovations and supports the development of data-driven solutions to benefit citizens.

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e-TOURISM: Streamlining Tourism Using ICT

Haryana is one of the most industrialized states in India. It is also known all over the world for its culture and religious & historical events like Mahabhart. Tourists and businessmen from all over the world visit this state. To expose the tourism potential of Haryana to the world, streamline the accommodation booking procedures and thwart fraudulent and corrupt practices in the existing system, e-Tourism initiative has been introduced.



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Haryana has been a front-runner in highway tourism. Haryana Tourism Corporation (HTC) operates 42 Tourist Complexes spread all over the state. The Corporation offers 785 rooms through these complexes for lodging of tourists. Due to non-availability of information related to room occupancy position, there was a great shortfall in revenue. Citizens access to important places like Kurukshetra, Pinjore and other destinations was very limited as a result of which tourists were deprived of access to cheap state tourism accommodation and were fleeced by private hotels.

Since, most of the business is from current booking, a tourist had to visit either the resort or to the booking offices at Chandigarh or Delhi to book the room in advance. The management was not able to monitor the room occupancy. Tourists from abroad were not able to book room while scheduling their travel plan to India and Haryana in particular. The customer base was limited and the customers were not able to avail the schemes launched by the corporation.

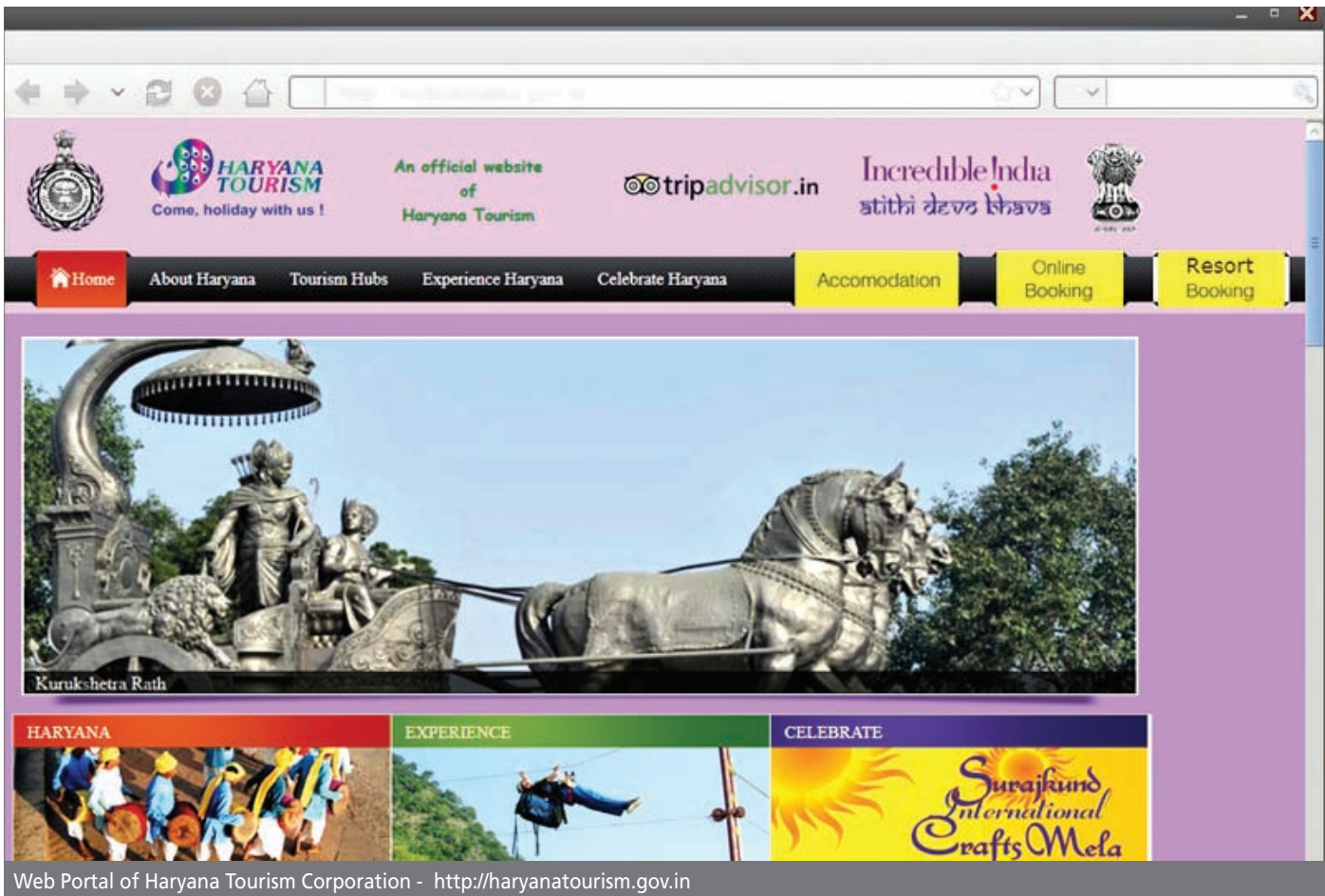
To expose the potential of tourism in Haryana to the world, a web portal (<http://haryanaturism.gov.in>) with integrated 'Online Rooms Booking System' and 'Online e-Ticketing for SurajKund International Crafts Mela' was inaugurated by Tourism Minister on 4th August, 2009. Visitors from all over the world can book rooms and tickets using debit/credit cards and internet banking of 26 Nationalised Banks. 'Surajkund International Crafts Mela' is organised every year from 1st February to 15th February. 'Online e-Ticketing System' is developed for booking entry tickets for the Mela. The system has the

facility to book rooms in any of the resorts of Haryana Tourism employing any of the following modes:

- **Using Payment Gateway:** As the system is web based, tourist can book accommodation from anywhere, anytime using debit/credit card.
- **Blocking of accommodation:** Tourists who do not have credit/debit card can make bookings by blocking the rooms and payment on account of tariff can be deposited in the Axis Bank account of respective tourist resort from anywhere.
- **At Resort counter:** Tourist can also book room in any resort of HTC from front office counter of that resort.
- **Tourist Agents:** HTC has made agreement with 30 private tourist agents. Interface is provided to agents for booking accommodation for any resort.
- System also provides e-Ticketing facility for SurjKund International Crafts Mela.

PROCESSES COMPUTERISED

- Advance Booking
- Current Booking
- Concessional Booking
- Discounted Booking
- Blocking of Rooms
- Confirmation of Blocking
- Cancellation of Booking
- Check-in
- Check-out
- Change Rooms
- Change accommodation type
- Making changes in tariff, Destinations, User Creation
- Publishing special discount
- Taking out accommodation from booking for repair/ maintenance
- Room Chart



- Monitoring finances and Occupancy Reporting
- E-Ticketing, checking of tickets at the Entry gate.

OBJECTIVES & ACHIEVEMENTS

- 1. Transparency:** The system ensures transparency by providing information on all types of accommodation of all HTC resorts on web, so that the customers are able to book the room as per availability.
- 2. Efficiency:** Processing of complete room reservation in a time bound manner and displaying the status on web adds greater efficiency to the process.
- 3. Elimination of Fraudulent & Corrupt Practices:** Non-entry in visitor’s register is expected to be reduced with the system.
- 4. Timeliness:** Due to automation of major manual processes, the whole exercise can be completed within shortest possible time.

5. Cost-effectiveness: With the implementation of Online Room Reservation System, more business is expected to be generated from all over the world.

- With the help of the system and automated communication, every tourist complex can now manage a larger customer base.
- Information related to location, mode of transport, facilities to visitors, visiting spots is now easily available.

6. e-Ticketing at Surajkund International Crafts Mela

More than 10 lakh visitors from all over the world visit the Surajkund Mela every year. Keeping in mind the botheration they go through while buying the tickets, e-Ticketing facility is the need of the hour. Foreign visitors who visit India to see this Mela will also be benefitted with system as it facilitates them to see the details of the event and book e-Ticket for mela entry and rooms in the nearby resort.

BOOKING STATISTICS

The total collections generated from the system is more than ₹ 98,27,72,567 through 4,90,000 bookings accomplished since its commencement on 4th August, 2009.

REPLICATION

- The software is provided to NIC, Tripura and NIC, West Bengal to customise it for their respective State Tourism Departments.
- Customization of the software for guest houses of Indian Council for Agriculture Research, New Delhi (ICAR) is being done at NIC, Haryana.

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DHARANI:

Digitally Signed Land Records of Goa

Even in the 21st century India, social status is very much defined by the piece of land one owns. Therefore, it is the obligation on the governments to have an efficient as well as an analytical mechanism to ascertain the ownership, type, and nature as well as cultivation pattern of the land. Manual records of land were never accurate and had been the reason of much discordance in the society. To tackle such situations computerization of the land records is the only answer.



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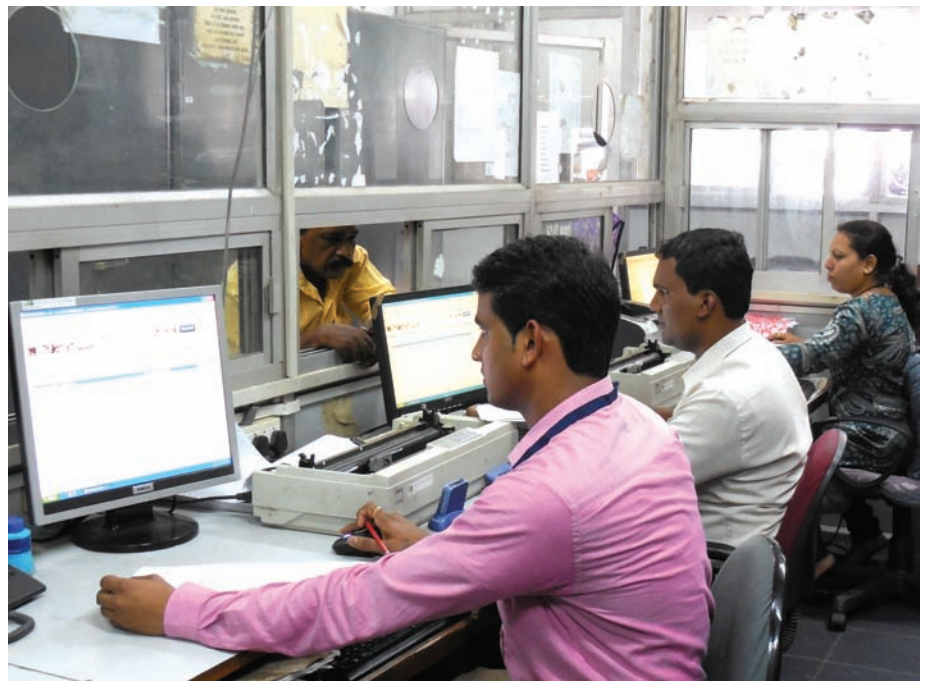
Edited by
ANSHU ROHATGI

Many states in India started the process of digitizing the land records. However, Goa is one of the first few states in country to complete 100% digitization of land records. The Integrated Textual Land Records Management System, which is named as a “Dharani” offers comprehensive and wholesome solutions. The computerization process started way back in 2001 and was inaugurated by the then Minister of Rural Development, Government of India. Subsequently, manual process was

terminated in mid 2002 with implementation of mutation process.

KEY FEATURES OF DHARANI

- Management of Rural (Form I & XIV) and Urban (Form D) Land Records – includes complete mutation process, management and updations.
- Dharani for Crop survey, a “click once” based application with web-services to enable the 187 talathis of Goa to conduct the survey of standing crops during Kharif and Rabi seasons and capture the cultivation details in Form XIV.
- Web enabled Touch Screen Kiosk Interface for direct access by public



Mutation Counter

- Mahiti Ghars providing copy of ROR to public

With advancement in technology, what was introduced as a textual (Record-of-Rights) RoR has been enhanced with modern technology known as digital signature. All-inclusive SWAN network, Goa Broadband Network (GBBN) provides robust connectivity through all the district collectorates as well as talukas of the state. Simultaneously, NIC Data Centre hosts the applications, web services and land records databases.

MUTATION PROCESS AMENDMENTS

- A ‘No Objection’ in the form of an affidavit from all the existing co-owners of the seller if submitted can waive off the notice service and mutation can be completed within a day’s time.
- No notice service and no mutation fees for cases processed by virtue of Tenancy and Mundkar declaration/purchases.
- No notice service for mutations processed by virtue of a Revenue court order passed under Corrections, Partitions, Amalgamations, Land Conversions and Land Acquisitions.

DIGITAL SIGNATURES

In the earlier scenario, an electronic RoR was not admissible in the court of law. In order to give legal sanctity to the electronic RoR, digital signatures were introduced. The digital signature has been adopted to ensure authenticity, integrity, and non-repudiation. Furthermore, it also facilitates authenticity verification through Directorate of Settlement & Land Records (DSLRL) website (<http://dslr.goa.nic.in>) for citizens and other stakeholders.

A digitally signed extract of RoR is

Usage Statistics till March 2014

1	Number of RoR issued/viewed	28,74,985
2	Number of Digitally signed RoR issued	8,513
3	RoR Digitally signed while authorizing mutations	6,376

available for citizens through Dharani Rural v3. At present, repository of Rural RoR is available for one taluka. The digitally signed ROR are being issued by the Mamlatdar’s Office since Jan 2013.

DSC ENABLED DHARANI

- The RoR is digitally signed by the Mamlatdar.
- Authenticity Verification Service made available at DSLR website for citizens and interested agencies.
- Integrity check of digitally signed documents done each time while generating RoR, failed cases are logged and RoR preview prevented.
- Digitally signed RoR & XML SOAP based web services extended to DHARNAKSH portal (<http://www.dharnaksh.com>) of Government of Goa for generation of Form I & XIV and integrated cadastral map with RoR information (Form J, Form XV).

DHARANIRURAL V3 COMPLIANCE WITH NATIONAL E-GOVERNANCE STANDARDS

- XML Signatures with the enhancements of XADES which is a W3C specification was adopted for digital signatures.
- Adopted SHA256 and RSA-SHA256 algorithms for signing process as recommended by CCA
- e-Governance MDDS location codes adopted
- XML SOAP based web services used for communication with discrete

and independent land record systems managed by multiple vendors

- UNICODE 5.0 as the character set encoding standard to store multilingual land records data
- SQL SERVER REPORTING SERVICES (SSRS) - 2008 is being used to render the RoR

INTEGRATION OF PROPERTY REGISTRATION WITH MUTATIONS

In order to ensure the seamless mutation process after registration of properties at Sub Registrar’s Offices, Dharani & GAURI s/w of Registration Department have been integrated as part of NLRMP (National Land Records Management Program).

ACCOLADES FOR DHARANI

The Directorate of Settlement & Land Records, Goa bagged the CSI Nihilent E-Governance “Award of Excellence” under best “Department Category” for 2009-2010 for its initiatives under Dharani project.

In this age of ubiquitous connectivity, it is vital to not only deliver services anywhere, anytime, but also to ensure that they are legally acceptable. Digital Signatures is one such answer towards the same.

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APPBUILDER: A Tool & A Framework

Software developers quite often come across situations where fast prototyping of a software becomes absolutely essential. Most of these software are database-centric and CRUD (create, retrieve, update, delete) functionalities form about 30%-40% of the total development effort (if not more). Therefore, it will be of great help if forms with CRUD functionalities can be generated using some tools. AppBuilder is a code-generation software (and also a Framework) that auto-generates application objects such as Menus and Forms for Table Management.



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AppBuilder is a code-generation software (and also a Framework) that auto-generates some of the application objects (e.g. Forms, Business Logic, Data Management Menus etc) using Database Metadata. With a well-designed database, a lot of details are already available in the Database Metadata, which can very much be used to generate application objects. Once a table is added to a database, a number of details are to be mandatorily defined, namely- Name of the Table, Name of the Columns, their type, length (if applicable) etc. A properly designed database contains other additional non-mandatory information like Descriptions (i.e. not only cryptic names) of Tables and Table Columns, definitions of Primary

Keys, Foreign Keys and Unique Constraints. All these metadata details are available through various system views and tables. In order to generate a simple menu for table management, the descriptive names for tables are good enough as Menu Options. For generating a Form for a table with CRUD and other features, one needs to know the Column Descriptions, Length, Type (for display and validation), Foreign Keys and Unique Constraints for creating Drop-down-lists. An effort also has been made to generate application objects with an Object-Oriented (OO) approach.

AppBuilder generates application objects such as Menus and Forms for Table Management. It is presently available in its best shape for JEE/PHP and MySQL/PostgreSQL database; but it is available under

Personnel Information System for NIC

National Informatics Centre, Assam

Employee Master Form

Employee Code*	<input type="text"/>	<input type="button" value="Get Record"/>
Emp. Name	<input type="text"/>	<input type="button" value="Search partial name"/>
Date of Birth	<input type="text"/>	
Date of Joining	<input type="text"/>	
DoJ in the Present Post	<input type="text"/>	
Designation Code	Choose an option <input type="button" value="v"/>	
Pay-scale Code	Choose an option <input type="button" value="v"/>	
State	Choose an option <input type="button" value="v"/>	<input type="button" value="Get Districts"/>
District	Choose an option <input type="button" value="v"/>	
<input type="button" value="Insert"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
<input type="button" value="List Records"/>	<input type="button" value="Filtered List"/>	<input type="button" value="Get Count"/>
<input type="button" value="Clear Form"/>	<input type="button" value="Back"/>	

A form generated with AppBuilder with a few modifications

various stages of development for .NET and MS SQL Server 2000 and 2005 databases.

A Table Management Form for a table is created with the name <tablename>Form.php, it displays all the columns of the database table; normal columns are displayed with a Label (showing the Column Description if available, otherwise the Column Name) and TextField combination (TextField has proper length restriction); a Date Column is shown with a TextField and a Calendar control; all not-nullable columns are marked with a * to indicate these cannot be left blank; a Foreign Key Column is shown with a Drop-down List. The Drop-down List in such cases is created by using the Primary Key Column and the Unique Column of the referred table. This approach has been adopted on the basis of the author's observation of a large number of softwares that Drop-down Lists in Forms always refer to Foreign Keys; also the Text part (i.e. the part shown in such a list as distinct from the Value part which is normally not shown) of a Drop-down List always refers to the Descriptive part of a table row, which preferably should be unique (i.e. some kind of alternate or candidate key). In case such a Unique Column (apart from the Primary Key) cannot be defined for a table because of syntactic reasons, the most appropriate Column needs to be manually inserted in the generated Code.

The basic CRUD operations are definitely parts of such a Form; Insertion, Retrieval, Updation and Deletion of a Record are basic features of such a Form; in addition, it provides a facility to list all records or list selectively depending on some filter criteria. While listing records, all Foreign Keys are replaced by their actual Descriptive Columns (e.g. A District Code will be replaced by the District Name). Such forms also have

server-side default validation on the basis of data type, length as well as SQL Injection validations; in the case of Retrieval and Deletion, only the Primary Key values are validated (as these are the only inputs required for these two operations). For Insertion and Updation, all Column values are validated. For Filtered List Record, all column values are validated since filter criteria can set any column value.

For any application with a large number of database tables, AppBuilder can definitely reduce development time to a great extent as all data management Forms can be generated in no time with the necessary business logic.

COMPONENTS/MODULES OF APPBUILDER

AppBuilder provides a rich library of classes; these are:

- **DBManager:** Wrapper Class to generalise database access independent of the actual database used
- **FileManager:** Utility Class to manage File Input/Output
- **HTMLUtil:** Class with useful methods to generate HTML controls with data
- **MySQLDBManager & PGDB Manager:** Actual database-manager classes for MYSQL & PostgreSQL databases; contains a large number of useful methods. It also contains other useful methods like querying for structure of tables with foreign key details, generating denormalised table structures etc.
- **Validator:** Class with necessary validation methods for different types of data

The methods available in these classes can be used in any application. This allows AppBuilder to be used also as a Framework.

For each database table, it generates following application objects:

- The Form, which contains the HTML tags (View) as well as the Controller part of the code required for processing user inputs.
- Table Manager Class which takes care of the CRUD operations and validations. The complexities involved in CRUD operations (e.g. Selected retrieval with filters, Retrieval with replacement of foreign key codes with appropriate values, Insertion and Updations with blank fields etc) are properly handled.

It also has limited configuration features in the sense that the date format can be chosen and parameters for validations like SQL Injection can be redefined.

APPLICATIONS DEVELOPED USING APPBUILDER TOOL

This tool has already been used to build up several projects in NIC Assam, notable amongst them being MIS for Small Tea Growers, GovPIS (a Personnel Information System for Govt of Assam), ERP for Assam Co-operative Jute Mill Ltd etc.

UNIQUE FEATURES OF THE INITIATIVE

None of the Code-generation software treat Foreign Keys the way the present tool does. Automatically generating relevant Drop-down Lists and maintaining them during the lifetime of a Form requires quite a lot of effort. Also the code generated by this tool is much easier to understand and modify.

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ROLE OF METADATA & DATA STANDARDS in e-GOVERNANCE

Seamless sharing and integration of data among various applications within and across the domains in e-Governance system augments its efficacy. In our country, a large number of the e-Governance applications developed within various domains are still being used in silos as they failed to be interoperable. A key technological challenge for effective interoperability among systems is to ensure that the precise meaning and pattern of the exchanged data are preserved, accessed and perceived in an organized manner. Standardization of data and systematic development of various interoperable applications are thus vital to the successful eco-systems of e-Governance.



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METADATA & DATA STANDARDS

Data Standards are those documented agreements and norms on representation, format, definition, structuring, tagging, transmission, manipulation, and use of data. Data Standards enable consistent recording of information and are fundamental to efficient sharing and exchange of information. They provide the rules for structuring information, so that the data entered into a system can be reliably read, sorted, indexed, retrieved, communicated and shared between systems.

Metadata is key to ensure that a data will survive and continue to be accessible in the future.

Metadata takes its importance once the Data Standards are in place. **Metadata** is the data that defines and describes another data or information. It is used to manage data, information and knowledge. Metadata is the structured information that describes, explains, locates or otherwise makes it easier to retrieve, use or manage an information resource.

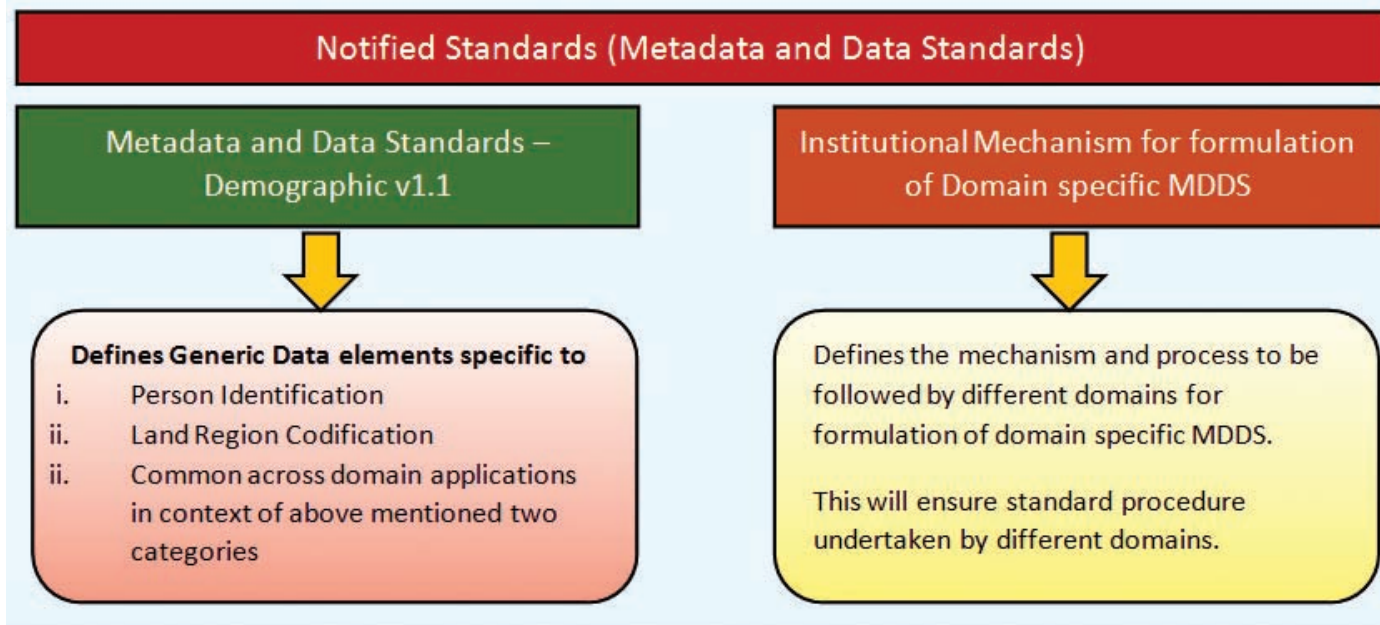
A Book Catalogue in a Library is a simple example of Metadata. The different data elements of information pertaining to a book such as Title of the Book, Author's name, Publication Date, Publication Language, Name of Publisher, Subject, Category, Keywords, etc. are describing and defining the

attributes of a book. Hence, these constitute the metadata of the book.

An integrated service in a typical e-Governance system would involve multiple domains, and deal with its various entities. Each of these entities is defined with the attributes called **data elements**. Similar kind of data elements are defined by different domains based on their own preset descriptions, data formats and data sizes. For example, the attribute "**Date**" related to a particular event may be represented in different formats such as dd/mm/yyyy, mm/dd/yyyy, or dd-mm-yyyy in other applications. Applications that are sharing data in such formats may interpret values differently, resulting in misinformation and unreliable data. This poses a major challenge in sharing data and information among the various applications.

It is also critically important to define each of the data elements as an independent unit and provide it with a contextual definition. For instance, the data element 'Plant' may be referred as a 'Green plant/herb/grass' by Agriculture domain, whereas it may be perceived as 'Manufacturing Unit/Industrial Plant' by the Industry domain.

Hence, achieving interoperability among domain applications, especially in context to e-Governance, **standardization of commonly accepted context-based data definitions and metadata** of various data elements forms a vital parameter.



METADATA REGISTRY (MDR)

As a part of the activity for standardization, DeitY has identified domains of 12 MMPs to work towards the formulation of Domain specific Metadata and Data standards (MDDS) through Domain Committee in each domain. Each domain requires standardization of its terms and entities to ensure semantic interoperability among e-Governance systems. Domains like Panchayati Raj, Health, Drinking Water & Sanitation and Agriculture are actively working in this direction.

Each of the domains will create and maintain **domain repository** of its standardized data elements along with their metadata. A Central Metadata Registry (MDR) will be created to maintain standardized generic data

elements common across domain applications and their metadata. This MDR will provide the **indexing/linking to different domain repositories** and promote standard descriptions, common understanding of data definitions, synchronization, management and re-use of data in different contexts.

INITIATIVES BY GOVERNMENT OF INDIA

a. Metadata and Data Standards – Demographic v1.1 (Notified in Nov 2011)

Data Elements have been defined and standardized for two domains; Person (identification) and Land Region (Codification) as a part of domain specific MDDS. The common generic data elements specific to two domains are also identified. Moving ahead, these common generic data elements will be stored in Centralized MDR. Controlled values of some of these data elements are defined in the form of **Code Directories**. List of notified generic data elements along with their metadata and XML Schema is available on <https://egovstandards.gov.in>,

which is being used by various applications.

b. Institutional Mechanism for formulation of Domain specific Metadata and Data Standards (MDDS)

This document describes the mechanism to be followed by different domains while formulating their MDDS along with roles and responsibilities of **Domain Committee** and other stakeholders involved. This will enable uniformity and consistency in the process undertaken by different domains.

CONCLUSION

Achieving semantic interoperability is functionally an important aspect in e-Governance in order to enable and provide single-window solution to citizens across the country. For this, it is essential that the various applications for information and service delivery need to adopt standardization in data definitions and metadata of its data elements.

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AWARENESS WORKSHOPS ON MDDS

- Awareness Workshop on Domain specific Metadata and Data Standards was organized at DeitY on 18th of October 2013 in which the officials from NIC & DeitY and representatives from different ministries/departments have participated.
- During the Workshop, training was imparted to the participants on formulation of Domain specific MDDS.

LEVERAGING EMERGING TECHNOLOGIES IN INTEGRATED PROPERTY REGISTRATION & LAND RECORDS SOLUTION

Emerging technologies like biometric authentications, DSCs, 2-D Bar Code along with QR Code, OTP, Web services based data replication, SMS, Web based access and AMS etc. have been increasingly employed in Property Registration and Land Records Solutions to ensure secure & authenticated access, enhanced quality & hassle free service delivery with appropriate information security to the general public. This article introspects on how these novel technologies have been integrated with the HARIS – HALRIS software solutions to facilitate the citizens to access their Records-of-rights on anywhere, anytime basis.



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Many innovative initiatives in computerization of property registration and land records have been taken up by the Government of Haryana. The property registration work has been computerized using the HARIS (Haryana Registration Information System) software, developed by NIC –Haryana, which is working at all 122 SRO (Tehsils & Sub-Tehsils) offices across Haryana and providing the property registration services in efficient manner. General public is getting diverse services like stamp duty evaluation and registration across the counter in the tehsil. The photographs of witnesses are also taken along with the sellers and buyers on-line. This has reduced the incidents of wrong witnesses, which was prevalent before the implementation of this system. To enhance the transparency in the deed registration work, Appointment Management System (AMS) of giving

appointments for deed registration has been introduced with the help of NIC Haryana. This is a Queue Management at HARIS centres for deed registration in First In First Out order. Now the citizens know beforehand what charges/fee they are required to pay. Collector rates are also available on <http://jamabandi.nic.in> website. These features have helped in elimination of the middlemen, who were the main source of corruption in the process.

The major land records document such as Jamabandi and Mutation have been computerized using the Haryana Land Records Information System (HALRIS) software, developed by NIC. HALRIS provides a workflow-based approach for the management of the land record documents and it has changed the delivery model from patwari centric to tehsil centric, where all the revenue related services are provided from tehsil/sub-tehsil level centers.

For integrating the digitized maps with the Record of Right and Mutation, Bhu-Naksha software is being used. All the three i.e. HARIS, HALRIS and Bhu-

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नकल जमाबंदी (पड़त पटवार)

गांव: अमरपाला कलाँ, तहसील: 274, जिला: करनाल, साल: 2010-2011, पृष्ठ संख्या: 1

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 Issued on: 13-11-2012 9:08:29 AM LAT: 15:11:2012 4:31:51 PM
 LRD: SST:15/11/2012 9:08:29 AM LAT:15/11/2012 4:31:51 PM

Copy of Record of Right (Jamabandi)



Team with the award

Naksha seamlessly integrated to provide a platform for dynamically integrating the property registration, land records and Cadastral Maps.

For ensuring secure & authenticated access, enhanced quality & hassle free service delivery with appropriate information security to the general public, a number of emerging technologies (like biometric authentications, DSCs, 2-D Bar Code along with QR Code, OTP, Web services based data replication, SMS, Web based access and AMS etc.) have been integrated with the HARIS – HALRIS software solutions, facilitating the citizens to access their Records-of-rights on anywhere, anytime basis and helping in reduction of litigations and frauds, as well as elimination of middle men from the service delivery process.

SYNCHRONIZATION OF TEHSIL LEVEL SERVERS WITH STATE DATA CENTER

Solution to synchronize the Jamabandi Web Nakal data hosted at State Data Center within 15 minutes of the occurrence of any transaction like deed registration, mutation etc at tehsil/sub-tehsil level is implemented using a set of .Net based windows and web services. Solution can run using different connectivity modes like SWAN,

NICNET, and broadband in a very simplified manner.

Digitally signed Record of Right

To provide the digitally signed copies of ROR (Jamabandi Nakal), digital signature certificates of the patwaris posted in HALRIS centers have been created. Nakal module of HALRIS has been enhanced to generate the nakal in pdf format and digitally signed using the DSC token of the patwari on duty. Every digitally signed Nakal carries a 15 digit unique ID and copy of the Nakal is transmitted to State Data Center so that it can be verified using the unique ID from jamabandi.nic.in.

Digital Signing of ROR Database

Revenue department decided to digitally sign the ROR data stored at State Data Center. Main idea behind this is to provide the ROR copy from digitally signed database on web. Database Signer application is developed to digitally sign & verify the database record by record. Windows service responsible for data synchronization of tehsil server with data center is also enhanced to transmit the digitally signed records.

Mobile app for project monitoring

Android based mobile apps has been developed to fetch the implementation status of HARIS and HALRIS by giving

the tehsil code as input. It uses a web service to fetch the status of the selected tehsil from the data center. This application is useful for monitoring the project implementation by the Senior Revenue Officers.

User access through mobile-based OTP

Jamabandi website is enhanced to authenticate the users using the SMS based OTP. This OTP based authentication is required to access the ROR generated from digitally signed database, scanned deeds and mutations.

Two Dimensional bar coded RORs

Jamabandi nakal module of HALRIS is enhanced to print the 2-D bar code using PDF 417 format, XML and hashing techniques. This solution has two main components - first is generation of 2-D bar code and second is bar code verification. The main objective of devising this solution is to generate the copies of ROR that can be verified to check any kind of tampering.

QR Code on ROR generated from web

Jamabandi website is enhanced to print the QR Code on the copies of ROR. Smart phone users can easily get the ROR issued from the website by scanning the QR code.

Biometrics based Access & Authentication

Biometric based authentication is provided in HALRIS and all critical save points in HALRIS like mutation sanctioning and incorporation etc can be accessed by biometrics only.

“Dynamic Integration of Property Registration, Land Records and Cadastral Maps” has received National Silver Award on e-Governance 2013-14 under the category “Incremental Innovation in Existing Project”

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ACHIEVING HIGH AVAILABILITY OF DATABASES THROUGH FAILOVER CLUSTERING USING MICROSOFT SQL SERVER 2008

One of the major challenges which IT systems face today is 'System Availability'. Availability is critical in terms of components viz., Web Server, Database Server, and Network. Without availability, services fail, SLAs exceed, revenue is lost and finally a bad publicity can leave a lasting effect on end-users. Availability of an IT system is being measured in currency, not in time anymore.

Right strategies have to be adopted to make systems Highly Available. For a database, it's not just availability but preservation without loss of data (till the point of failure) which is very important. SQL Server 2008 provides various High Availability technologies like Backup, Clustering, Mirroring, Log shipping and Replication. This paper gives an overview of High Availability technologies with primary focus on the Database Failover Clustering.



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BACKUP & RESTORE

Generally Backup and Restore facility is not considered as a feature of availability. However, at some point, a need for restoring a backup always arises.

Important

- Know where backup is located.
- Test the backup randomly while performing a restore.

DATABASE MIRRORING

Database mirroring is one of the solutions to increase the availability of a SQL Server database and minimize or avoid server downtime. Mirroring requires creation and maintenance of redundant copy/copies of a database. Data Redundancy ensures that at least a copy of database is always available and

remains accessible during the failure of primary database.

It is recommended to use AlwaysOn Availability Groups since mirroring will be removed in future versions.

LOG SHIPPING

Log shipping is considered as a technique than a technology. Database availability through log shipping is achieved by maintaining a backup server that can replace production server in the event of any failure at the Primary. The process includes-sending of transaction log backups from a primary database to one or more secondary databases automatically and restoring them at the receiving end there by bringing synchronization between the primary and the secondary database(s). An optional monitor server instance keeps recording the history and status of backup and restores operations. It raises alerts if these operations do not occur as scheduled.

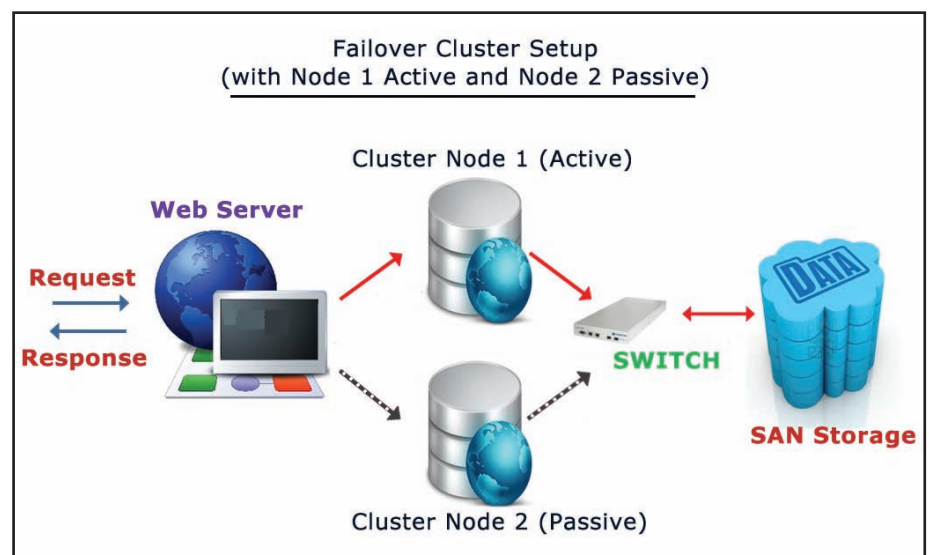


Figure 1 – Active/Passive DB Clustering

REPLICATION

Definition (Source: MSDN): Replication is a set of technologies for copying and distributing data and database objects from one database to another and then synchronizing between databases to maintain consistency. SQL Server supports various types of Database Replication viz., Snapshot Replication, Transactional Replication, Transactional Replication with Updatable Subscriptions and Merge Replication. In any replication, there are important components called Publisher (Source Database), Subscriber (Destination Database), Article (Information to Replicate) and Distributor (Information Delivery Agent).

DATABASE CLUSTERING

SQL Server Failover Clustering is designed to provide high server availability. It helps keep applications online most of the time. When done properly, it makes the database highly available. Termed as Microsoft Cluster Service (MSCS), this works at the database level. Two systems are connected and configured in a Cluster. If primary server fails or is purposely brought down, SQL Server processing switches to the clustered system. This switch is known as Failover. Failover is

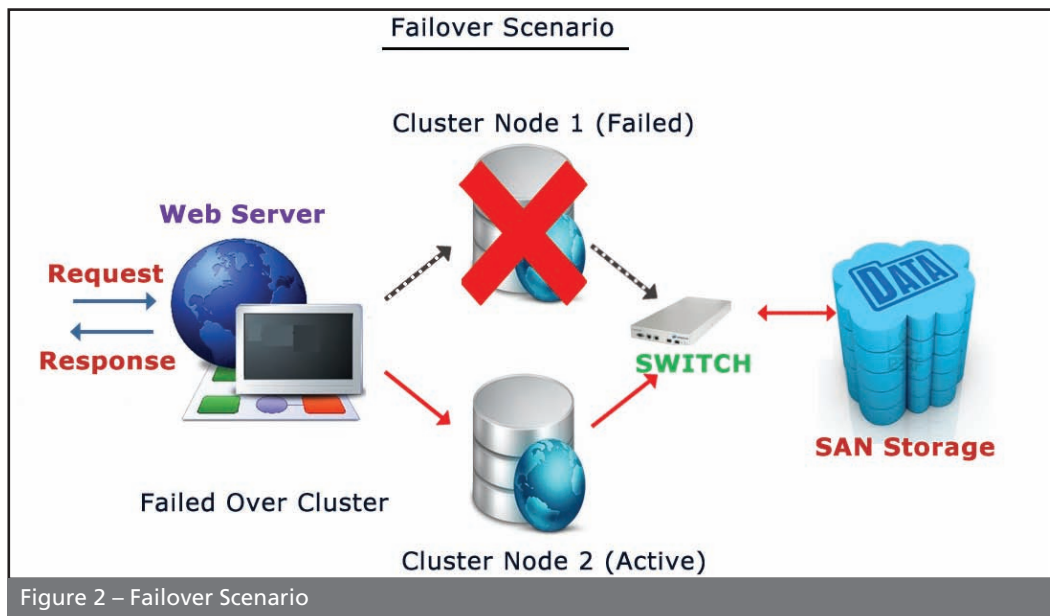


Figure 2 – Failover Scenario

designed to minimize system downtime. Once a failover occurs, the failed system may be restored, brought back online, and then it is possible to switch processing back to the restored system – this is called Failback.

HOW CLUSTERING WORKS?

In traditional setup between web and database servers, hardware/network failure on database side brings the whole service to a standstill.

Figure 1 gives Clustered Database Setup. This solution operates in active/passive (with Cluster Node 1 active and Cluster Node 2 passive) mode, which means that at any point in time only one of the nodes in the cluster is active.

The active node keeps writing data to a

location on the shared drives called Quorum. Quorum is used to share state information whenever the cluster fails-over from one node to next. Quorum is basically a log file (like database logs). Its purpose is to record every change made on the active node. Thus, every recorded change in Quorum gets applied to passive node during active node failure. A signal called Heartbeat is periodically sent across the private network connection between servers. The passive node checks for Heartbeat and whenever owning resource is unavailable, it takes ownership of cluster resources and starts reading state information from Quorum.

Figure 2 shows Failover state where active node experiences failure and passive node takes over (ensuring minimum disruption). The failover is automatic and managed by Failover Cluster Manager.

Once Node 1 is repaired and ready for use, Failback can be initiated from Failover Cluster Manager.

To conclude, there are situations where Clustering holds high importance and also situations when Clustering does not have a role.

Situations where Clustering is of Use	Situations where Clustering has no role
<ul style="list-style-type: none"> • Hardware failures 	<ul style="list-style-type: none"> • Doesn't impact system performance
<ul style="list-style-type: none"> • Applying security patches, Windows Updates 	<ul style="list-style-type: none"> • No guarantee for storage availability. Doesn't save space, effort for backups, maintenance. All maintenance to go as usual.
<ul style="list-style-type: none"> • Transparent to calling application 	<ul style="list-style-type: none"> • SSRS(SQLServer ReportingServices) not "Cluster-aware"
<ul style="list-style-type: none"> • All databases, logins, agent jobs in Failover come-up together as single unit without scripting or configuration 	<ul style="list-style-type: none"> • No guaranteed 100% availability. There could be downtime when SQL Server instance is "failing over" or moving between nodes.
<ul style="list-style-type: none"> • Clustering is additional tool in troubleshooting toolkit 	

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SIRSA: Revolutionizing Governance Through ICT

Sirsa is said to be one of the oldest places of Northern India and its ancient name was Sairishaka, which finds its mention in Mahabharata, Panini's Ashatadhyayi and Divyavadan. It must have been a flourishing city in the 5th century B.C. as mentioned by Panini. Sirsa forms the extreme west corner of Haryana and has bagged the honour of having the second highest cotton acreage across the country. Spread over an area of 4277 sq. kms and formed on November 1, 1975, District Sirsa is located at a distance of 255 Kms from National Capital on NH-10 and 250 Kms from the State Capital-Chandigarh.



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NIC District Centre Sirsa, established in 1988, has been instrumental in implementing various e-Governance projects & ICT initiatives with full dedication and zeal. It has been its continuous endeavour to efficiently deliver citizen centric services.

KEY ICT PROJECTS

- **e-Disha Centres:** New building of District Level e-Disha Centre was inaugurated by Hon'ble Chief Minister Haryana which has been renovated by providing air conditioned waiting hall for public with AQMS.
- **Land Records MMP:** Sirsa was the pilot district towards computerization of land records in Haryana and the project was formally launched by the then Hon'ble Chief Minister Haryana on November 1, 2003.
- **Nakal (RoR) Issuance Centre at Kanungo Circles:** Sirsa is the only district in Haryana where Jamabandi Nakal Issuance Centres have been established at 3 Kanungo Circles using SWAN connectivity.
- **National Land Records Modernization Programme:** Hon'ble Chief Minister Haryana laid the Foundation Stone for Modern Record Room at Tehsil Rania. Various revenue documents are scanned under DMS. Cadastral



Dr. ANSHAJ SINGH, IAS
Deputy Commissioner

I would like to place on record the excellent work, devotion to duty and outstanding sense of responsibility of the NIC Team in District Sirsa in promoting Informatics Culture and implementing G2C Services down upto tehsil level. This has resulted in bringing significant transparency & efficiency in the whole system.

Apart from various other e-Governance projects, NIC Team has also played a vital role in providing ICT support during the recent visit of Dr. APJ Abdul Kalam, the former President of India to District Sirsa on July 6, 2013.

I really look forward for NIC Team at Sirsa to act upto highest level by their sincere and strenuous efforts.

Maps of all villages have been digitized for further linkages.

- **Digital Signature Certificates:** DSCs have been procured from NICCA for various officers of the district for the projects requiring DSC authentication.
- **e-Tendering:** District Sirsa is the front runner in implementation of e-

Tendering system at Municipal Committees.

• **Property Registration:** Haryana Registration Information System (HARIS) with Biometric authentication and online capturing of photographs has been implemented at all tehsils and sub-tehsils.

• **VAHAN & SARATHI:** National level software have been successfully implemented in all three subdivisions and RTA Office.

• **Website of District Sirsa:** The Official website of District Sirsa designed and developed by NIC was inaugurated by the then Hon'ble Chief Minister Haryana on October 31, 2000. The website acts as one point source of information to access vital information.

OTHER ICT RELATED PROJECTS

- Full ICT support during Krishi Vasant Webcast/VC
- CSCs - VLE Selection towards establishment
- HARSAMADHAN
- JANSAHAYAK

- Certificates Issuance
- NADRS
- e-Court MMP
- Treasury MMP
- Revenue Court cases Monitoring
- Rural Informatics and e-Panchayat MMP
- Online BDMIS and IDSP
- Pension and Senior. Citizens ID Cards
- National Food Security Ordinance-2013
- Smart Card based Ration Card at block Sirsa
- CM's Announcements
- Elections
- CIPA & CCTNS
- AGMARKNET

ICT RELATED CENTRES IN THE DISTRICT

- e-Disha Centres at all Subdivisions
- Tehsil Service Centres at all tehsils & sub-tehsils
- Jamabandi Nakal Issuance Centres at 3 Kanungo Circles
- ICT Training Lab. at District Hqrs.
- e-Aadhaar Centre at District Hqrs.



ARUN KUMAR GUPTA, IAS

The spirit and enthusiasm with which the projects are managed and activities are carried out is really commendable. I further appreciate the challenging tasks that NIC has taken-up in framing new dimensions.

It is but an expression of my total faith in NIC and its professionals.

- Video Conferencing Centre at NIC and Conference Hall
- DNMC & BNMCs under SWAN
- Judicial Service Centre & Computer Server Room in Courts

VISIT OF Dr. APJ ABDUL KALAM

Dr. APJ Abdul Kalam, Former President of India visited CMK Girls PG College Sirsa on 06/07/2013 and interacted with the students of Govt. & Private Schools wherein NIC was entrusted to provide the ICT Support for the event.

AWARDS/APPRECIATIONS

The efforts of NIC District Team have been continuously applauded by District Administration and the team has dozens of appreciations and awards to its credit.

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Dr. APJ Abdul Kalam interacting with Deputy Commissioner Sirsa

PAKUR:

Empowering Citizens through e-Governance

Situated in the north-eastern corner, Pakur is one of the twenty four districts of the Jharkhand state and is topographically divided into three distinct regions – hilly, rolling and alluvial. The district is predominantly agricultural based and the main occupation of the people is cultivation. Kharif & Rabbi are the main agricultural seasons. There are two main tribal groups- the Santhals and the Paharias and their ratio is 42% & 15%. The district has a large number of stone mines, coal mines and crushers. The quality of Pakur black stone chips is famous all over the world and is excellent for construction purposes.



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The district website - <http://pakur.nic.in> is a rich repository of information for various stakeholders. The bilingual website is also high in terms of navigation. The website offers content related to profile and administration of the district, tourism, education, health, District Gazette etc. The Citizen corner provides links to recruitment, land valuation and press releases while the Employee corner has links for DDO Level Bill Entry along with PRAN details check and GPF statement view facility for the employees. Various circulars and links for online services are also available.

E-GOVERNANCE ACTIVITIES OF THE DISTRICT AT A GLANCE

• e-Nagrik Seva (<http://jhr.nic.in/csc>)

An Online Citizen Centric System - e-Nagrik Seva was launched by Dy. Commissioner of Pakur for online issuance of various types of certificates like caste, residence, income, date & birth in affiliation of Common Services Centres (CSCs). It is a web-based system for tracking the applications for different types of certificates. A user-friendly interface is provided for submission, tracking and monitoring of applications. Downloadable forms, information on required enclosures and guidelines makes the system very helpful, while certificates are generated after proper verification by the concerned officer in-charge. The facility has proved to be a major

http://www.pakur.nic.in Welcome to...
पाकुड़ PAKUR
 (Jharkhand, India)
 A Land of Vibrant People and Black Stone

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About Pakur

Pakur, famous for stone and Beedi (Biri) making industry, is one of the important revenue-earning districts of newly created Jharkhand State. Its black stone chips have got Asiatic fame in constructional qualities. Pakur got elevated from sub-divisional Status to a district on 28th January 1994 vide Govt. of Bihar's notification no 19 (Personnel) dated 28.01.1994.

Recent Updates

✓ जिला इन्फोर्मेटिक्स, एम.आई.एस. समन्वय, सेवागमन -सह-कम्प्यूटर ऑपरेशन, रिजोर्सिफिकेशन, सेरेमिटर, आदिगणना एवं विभिन्न आवेदन पत्र

Services

Circular/Order
UID

Employee Corner Developments Food & Supply Welfare
 ✓ Order/Circular ✓ Order/Circular ✓ Order/Circular

Pakur District website – Home page



e-Nagrik Seva Kiosk at Circle Office, Pakur

milestone in bringing government services at the doorsteps of the citizens thus realizing the larger goal of e-Governance.

Major Benefits

1. Citizens can easily apply for the certificates from home.
2. Citizens can easily track the status of their application online. They can also know about the inadequacies of their application while it is still under process.
3. Certificates are generated on first come first serve basis and can be easily received through the kiosk.
4. The new initiative ensures elimination of middleman & freedom from unnecessary hassles.

• e-Swikriti

It is a G2G web enabled application designed and developed in Asp.net-2005 & MS-SQL Server as a backend. It is hosted on a local server accessible through SWAN. Purpose of the system is to provide greater transparency and accountability towards sanctioning of new schemes proposed from different line departments in the district.

The module covers extensive scheme management like scheme entry, sanctioning, rejection, suspension & revocation. A unique Scheme No. is automatically generated when a scheme is finally scrutinized and approved. The work progress under the scheme can be checked with

various parameters like work category, work type, Village-wise Plot No., Previous Scheme Status and Associated Plot No. which is mentioned exclusively according to each village. The system automatically detects duplicity when any particular category of work is already sanctioned or running on a particular plot no.

• e-Awkash

e-Awkash is a G2G web enabled application for leave management that streamlines leave sanctioning between Administration and officers at the district level. Designed & Developed by NIC Pakur using Asp.net & SQL Server, e-Awkash ensures that all the previously taken leaves and requests for the leaves in future are properly monitored. The officers/staff can apply and view leave records through their desktop using local intranet

without hassles and delays of going through the admin staff.

Leave approver can see the leave request initiated by his/her subordinate officer on his own dashboard as soon as any leave has been applied. The approver holds the right to approve or disapprove any leave with remarks. Officers can automatically download their leave sanction or rejection form using the application.

e-Awkash application incurs the following benefits:

- Leave approver can see the leave history of his officers before sanctioning any further leave.
- Offices are not required to send leave requests manually.
- Officers can also their previous leave records at any given time.
- Maintenance of leave records has been made easier and hassle-free through the system.

• MIS on Social Security

An initiative for the payment of old age pensions at the doorstep of the pensioners in coordination with the banks has been implemented in Pakur district. The beneficiaries get their pension directly in their bank accounts. Government has made arrangements with some of the banks



E-Swikriti -At District NIC Centre

to appoint 'Business correspondents' to deliver the pension at the doorsteps of the pensioners. About 28,300 pensioners of the district are being benefited by the new initiative. The initiative has ensured transparency and effective service delivery and can be availed at <http://jhr.nic.in/pension>.

• Jharkhand Samadhan

An online public grievance & redressal application designed & developed by NIC Jharkhand State Centre is fully operational in Pakur district where citizens can lodge their grievances, give reminders, clarifications and view action status. Grievances of citizens under various departments of District Administration are compiled by the system. It is available at the URL <http://jharkhandsamadhan.nic.in>

• Unique Contractor Account Number (UCAN)

The system facilitates to register contractors at district level and maintain their details for monitoring their work performance. Through the system the declared bid capacity of a contractor is assessed and the future work is allotted accordingly. Also, all



the details of contractor's ongoing and completed work can be easily verified through the system. This helps in overall assessment of a contractor before a new work is allotted.

Any new contractor can register himself/herself and can check his/her acceptance/rejection status. For registration, PAN No. is mandatory

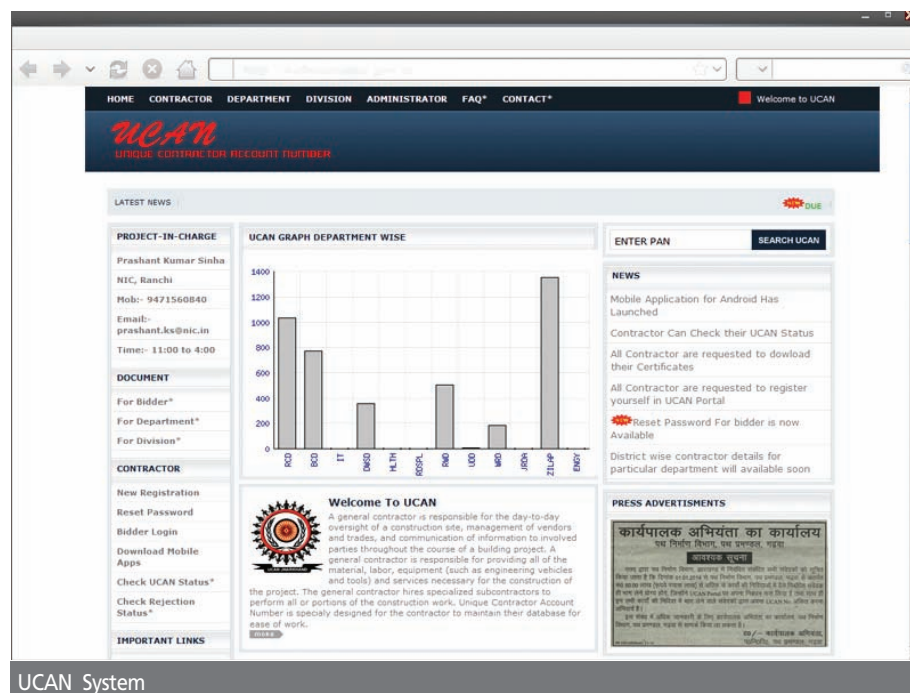
and thereafter a new UCAN is allotted. The application can be accessed at <http://164.100.150.7/ucanjhr/>

• National Rural Employment Guarantee Scheme

This scheme has been implemented at all the six blocks of the district. The role based software captures data at grass root level for rural employment generation, issuance of Job Cards & Muster Rolls, employment details, work status, expenditure details and details of perspective plan & social audit. It can be availed through district web portal. Recently, e-Muster Roll has also been implemented.

• e-PDS

Designed & developed by NIC State Centre, this initiative is fully functional in the district to capture beneficiaries & dealer details for ration cards. Presently, one lakh BPL e-Ration Cards have been generated by the system.



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KANNUR:

ICT for the Land of Looms and Lore

It is assumed that the name Kannur has derived from one of the deities of the Hindu pantheon 'Kannan' (Lord Krishna) and 'Ur' (place) making it the place of Lord Krishna. The district is known as the 'Land of Looms and Lore'. Earlier the district was named 'Cannanore' which is anglicised from of Kannur. The district has 1 Revenue Division, 4 Taluks, and 129 Revenue Villages. It comprises of 6 Municipalities and 81 Grama Panchayats under 11 Blocks.



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Since the formation of District Centre in Kannur, NIC has been facilitating district administration with its state-of-the-art ICT services so as to leverage the e-Governance scenario in the district. The centre is equipped with NICNET infrastructure having 100 Mbps redundant leased line connectivity to NIC Trivandrum with a backup line of 34 mbps. A Collectorate Data Centre is operational on a 24x7x365 basis which hosts various district level web services over Intranet and Internet. NIC has spearheaded many ICT projects in the

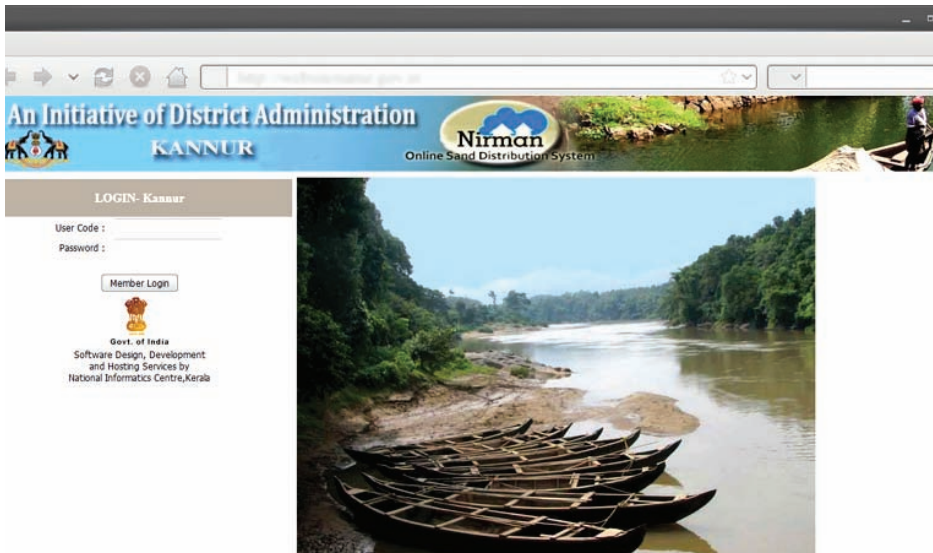
district since its inception in 1988 and has played a significant role in most of the successful projects.

The official website of Kannur, <http://kannur.gov.in>, designed and developed by NIC District Centre is a repository of important information related to the district.

THE LANDMARKS IN THE ICT MAP OF KANNUR

• e-District

e-District is one of the MMPs under the NeGP. Kannur district is the first in Kerala to implement the e-District with 23 services of Revenue Department in all its taluk and village offices (129 villages and 4 taluks). The project was rolled out in the district in December



2010. As on March 2014, around 13,07,000 applications have been submitted through CSCs and about 11,83,000 digitally signed certificates have been issued by the Village Officers/ Thasildars.

• **RTPerMS**

The Road Trenching Permit Management System (RTPerMS) is an online workflow based system for managing the permission for digging of roads by various agencies like BSNL, KWA, KSEB, etc. The project could help the administration to optimally plan the trenching activities with minimum hardships to citizens as well as to the government.

• **eSAND/Nirman**

This is a system for neutral distribution of river sand to the citizens for the construction work. NIC has devised an e-Governance solution

which helps the administration for effective implementation of the ‘Kerala protection of river banks and regulation of removal of Sand Act 2001 & Rules 2002’

A web service is in place to reflect the transaction count in the eTaal Portal. SMS service and mobile application for token status are value additions to the project.

• **eHajar**

eHajar is an electronic attendance monitoring system with biometric based attendance register which has been implemented at the Collectorate. The leaves, tours and movements of the employees can be managed at all levels using eHajar.

• **DCPGMS**

District Collectors Public Grievance Monitoring system is implemented to keep track of the grievances submitted



P. BALA KIRAN,
District Collector

I wish to put on record, the ICT services rendered by National informatics Centre for good Governance in Kannur District. The e-Governance initiatives taken up by National Informatics Centre have helped the District Administration to improve their service delivery to the citizens as well as the G2G services.

The roll out of eSand/Nirman, Road Trenching Permit Management System (RTPerMS), Touch Screen based information kiosk, DCPGMS and eHajar were a few major projects which could make the district to be proud on their e-Governance initiatives. The e-District model implemented in the district was the best model in the country which could not be a success without the tremendous efforts by NIC.

I am grateful for the support rendered for the various other district activities like Video VC among Revenue Officers, Collectorate Surveillance System, DC*Suite, Taluk Suite, RR Online, LINK, District website management and many other activities involving ICT support. NIC has played a major role in the implementation of various State/ Central Government initiated e-Governance solutions such as DBT application, e-Hospital, e-Courts, Jail-Court VC, FMPDS, Civil Supplies, Fisheries, MGNREGS, CONFONET, NADRS, etc.

Expecting continued support in future, I wish NIC all the best in their endeavours.



Inauguration of RTPerMS by Chief Secretary , GoK

directly to the District Collector. More than 11,200 PGs received by the Collector are available in this system. The system was inaugurated by Hon'ble Chief Minister of Kerala in April 2012.

• Touch Screen based Information Kiosk

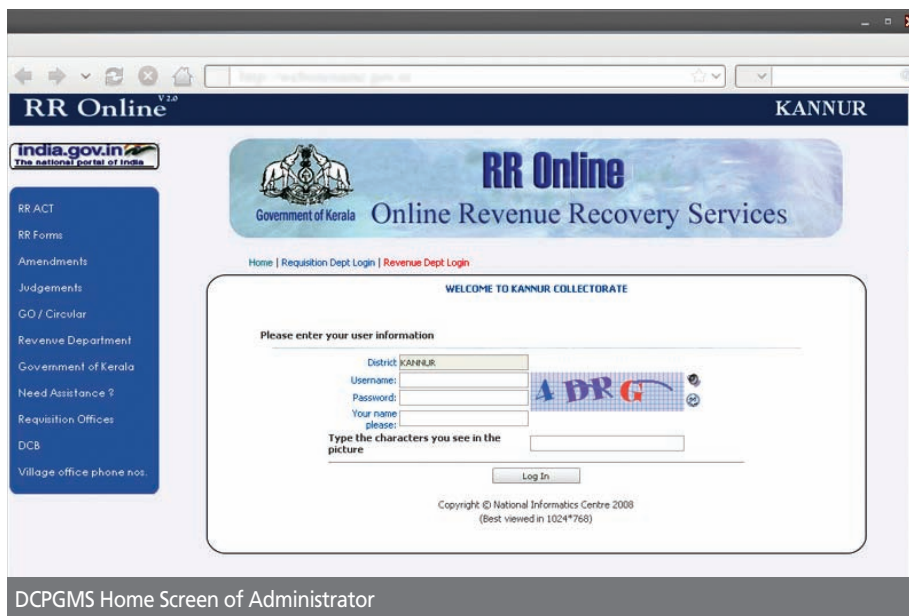
A touch screen based information kiosk has been setup which disseminates district specific information and status. This includes general information about the district, disaster management equipment availability, eSAND/Nirman token status, Revenue Officers/Offices search, DCPGMS, File/Tapal status, etc.

• LINK

LINK (Land Information Network for Kerala) is a web application which could build a land information database using the physical data spread over various Revenue Offices. Database contains details of surplus land, AW land and Ajmash register.

• DC suite

DC*Suite is a workflow based suite of applications for the District



DCPGMS Home Screen of Administrator

Collectorates in Kerala. DC*Suite is replicated in Kannur district after the pilot implementation in Palakkad. It contains the following features:

- Touch Screen kiosk for File/Tapal status
- DC*Suite Services on internet (<http://dcsuiteservices.nic.in>)
- DC*Suite File/Tapal status through SMS
- Connectivity to DC's Camp office and Taluk Offices

• Taluk Suite

This is a suite of application developed in line with DC*Suite for implementation in Taluk offices. The online file/Tapal transfer from DC*Suite to Taluk Suite is facilitated.

• RR Online

Software solution for submitting the Revenue Recovery Requisition online by various Requisition Authorities is implemented. RR Online is linked to DC*Suite and Taluk Suite.

• Other Initiatives & State/Central Projects

Video VC has been enabled for VC among Revenue Officers in the district. Support for DBT, e-Hospital, e-Courts, NADRS, Jail-Court VC, MGNREGS, CONFONET, PDS and FMPDS, Real Craft, etc is being provided for the efficient implementation of these projects. The websites for various Kendriya Vidyalayas in Kannur district have been developed and maintained by NIC.



Citizen at the Touch Screen Kiosk in Collectorate, Kannur

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SHIMLA:

Bringing ICT at the doorsteps of the Citizens

Shimla, popularly known as the "Queen of Hills", is the capital of Himachal Pradesh. It is famous worldwide as a popular tourist destination. Shimla has witnessed many historical events during British rule and in post-independence period. The town of Shimla is built over several hills and connecting ridges. The elevation of the district ranges from 300 to 6000 metres. The topology of the district is rugged & tough and 70% area of the district is in the snow line.



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Since its establishment in 1988, the NIC District Centre, Shimla has played a pivotal role in spreading IT across the district. It has provided technical support to the District Administration & various departments and is also involved in software development, implementation of various National and State level IT Projects. District Centre has latest ICT infrastructure and robust network for better delivery of services. The centre also has 34Mbps lease line connectivity. A District e-Governance Society has been created by the administration for the delivery of citizen services at sub divisions and tehsils through Sugam Centres. Technical manpower has been placed in each centre for smooth functioning.

KEY ICT SERVICES

• Citizen Centric Services through SUGAM Centres

The SUGAM Centres are operational in Collectorate, Sub-Divisions and Tehsil offices. The main objective of these centres is to provide hassle free and quality services to the citizens under one roof. The main services provided are:

- Driving License Issuance and renewals
- Vehicle Registration and related works
- Issuance of Land Records, Nakals
- Payment of Electricity Bills



DINESH MALHOTRA, IAS
Deputy Commissioner

The District Centre of NIC at Shimla is doing excellent work in association with District Administration in spreading IT culture in the Collectorate and Revenue Offices at sub-division and tehsil level. It is through e-Governance that we can bring transparency and efficiency in administrative system and can serve the society effectively. Shimla Administration is pioneer in this direction and have setup Sugam Centres at all the Revenue Offices in the district. I would like to have a paperless office in future.

- Issuance of 14 type of certificates like bonafide, agriculture etc
- Registration of deeds
- Registration of voters
- Issuance and renewal of Arms License
- Issuance of Senior Citizen Cards
- Issuance of Disability Cards
- Issuance of Permits
- Aadhaar Registration and issuance of duplicate Aadhaar Cards

• **Land Records Computerisation**

The HimBhoomi project has been implemented in all the 18 tehsils of the district. The project has benefitted the revenue staff in timely preparation of records and public has been facilitated by easy availability of RORs at Tehsil Sugam Centres or at the LMKs (Lok Mitra Kendras). The ROR is generated in real time by accessing the tehsil servers. Citizens have been granted access to view the land details.

• **Registration of Deeds**

Himachal Registration Information System (HIMRIS) is operational in all the 18 tehsils of the district. All types of deeds are registered by the system laden with features to capture biometrics data. The input data is validated with online land records data before the deed gets registered. The HIMRIS software is integrated with land records; transactions related to property are recorded immediately on the land records database and reflected in the ROR. The SRO offices are now able to return the registered documents on the same day and this has enhanced their work efficiency.

• **Arms Licensing**
(<http://admis.hp.nic.in/shastr>)

The arms license software, e-Shastr, is operational in the collectorate and sub-divisions of the district. The software is web based and role based. The license once entered in the system can be validated online. The software has feature of capturing biometrics and auto generation of SMSes. The Arms Licence is issued in the shape of passbook and every endorsement is made in it by the use of a passbook printer.

• **Public Grievance Redressal System**

In the e-Samadhan software, the grievances are entered by public either online or through the Grievance cell of



Sugam Centre at DC Office, Shimla

the collectorate. Each grievance has been categorized and given a fixed disposal time otherwise auto-alerts are raised. The status of the grievance is available online to the concerned officers and to their superiors, secretaries and ministers. The implementation of this system has ensured transparency and timely disposal of the grievances.

• **District Website**
(<http://hpshimla.nic.in>)

The website of district Shimla is encumbered with latest information for the benefit of various stakeholders. The website offers content on different types of services which have been grouped under separate sections. Special emphasis has been laid on G2C and G2G activities. The website is used in-house for the internal orders and circulars on Intranet. The website also provides information on Tourism, Fact File, Temples, Fairs & Festivals, Disaster Management etc. in the district.

• **IVFRT Project**

The Immigration Visa Foreigners Registration and Tracking Project has been implemented at FRO Shimla. The modules in use are cFRO, C-Form and S Form. The Foreigners having a stay of more than 6 months

are getting themselves registered on the centralized FRO module at the SP Office. The details of foreigners staying in hotels and students studying in educational institutions are entered in the C Form & S Form modules. Besides these, the following National Level Projects have been implemented in the district:

- **e-Courts** – e-Courts MMP Project implemented in all the Sub-ordinate courts.
- **NADRS** - National Animal Disease Reporting System has been implemented at Veterinary Hospitals in the blocks.
- **Kanoon Vyavastha** - The software is operational in all the Thanas of the district. Online Data Updation module for Kanoon Vyavastha has been integrated with it.
- **AGMARKNET** – Five Whole Sale Mandis are using this software.
- **NDAL** – National Database on Arms Licences has also been implemented in the district.

FOR FURTHER INFORMATION:

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GIS-BASED PROPERTY APP LAUNCHED IN SINGAPORE

A new map based app that utilizes Geographic Information System (GIS) technology has been launched by Urban Redevelopment Authority (URA), Singapore. The new app help the users with information related to buying or leasing a property besides information on the approved use and storey height of the building, approved use of the surrounding properties etc.

The new app promises easy retrieval of information on property for professionals and general public alike. Users only have to click on a building or type in an address and the app will retrieve information from URA records relevant decisions on any new building erection, change of use, alteration of structures etc.

For the users which have registered online, this app comes totally free of cost. A processing fee of \$30 has been applied in the past for downloading the detailed records of decision notices for development applications. At present, GIS technology has been extensively deployed to provide information related to conserved buildings and property



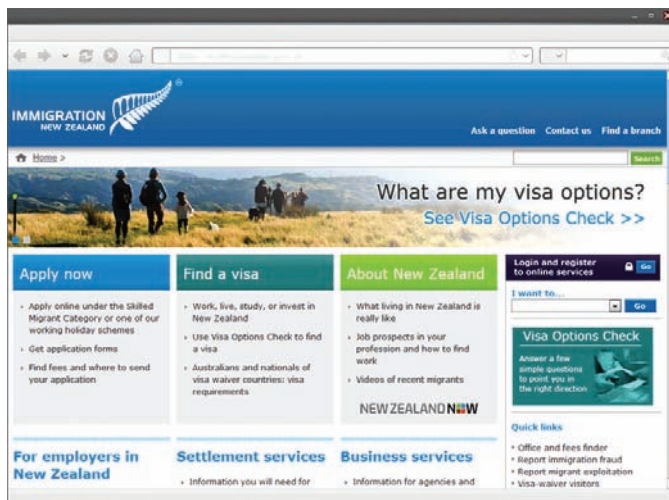
market. Plans are in pipeline to develop an app for enquiries on development charge rates on similar lines.

For Further Information

<http://www.ura.gov.sg/uol/>

NEW ZEALAND'S IMMIGRATION MANAGEMENT SYSTEM ON PATH TO COMPLETION

Imigration Global Management System, or IGMS, an initiative from Immigration New Zealand (INZ) is on track to complete the majority of functionality by the end of 2015. This includes functionalities such as online visa applications and processing, automation of simple tasks, the use of electronic documents, access to the system by approved third parties along with significant improvements in identity management.



The initiative that has come to fore in February 2012 intends to assist the visa applicants by enabling them to apply online for their visas. With total project budget of NZ\$ 91.5 million, the new initiative is being implemented by Ministry of Business, Innovation and Employment, which includes Immigration New Zealand. Datacom is the prime contractor for the IGMS project.

The system will enhance the use of biometrics (fingerprints, photographs etc.) which will further improve the integrity of the immigration system by providing greater certainty that a person arriving in the country is the same person that was issued a visa offshore. The system also intends to ensure strong intelligence and risk management tools, and strengthened international data sharing on criminality and immigration fraud.

To gain safe access to the IGMS, applicants and third parties such as immigration agents and education institutions are required to have a RealMe logon which is the Government's online identity verification service. An additional layer of security further determines what the logged-in user can see and do, once the access is granted.

For Further Information

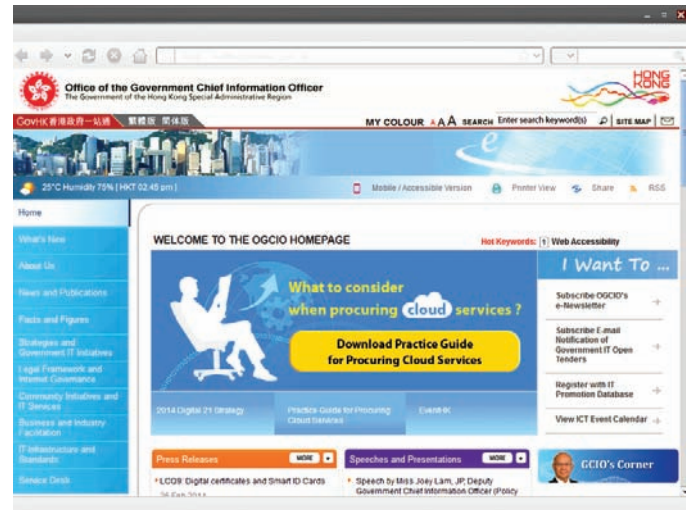
<http://www.immigration.govt.nz/>

GOVCLOUD PLATFORM LAUNCHED IN HONG KONG

Government Cloud Platform (GovCloud) was launched in Hong Kong to enable the hosting of common e-government services for shared use by various bureaus and departments of government. GovCloud is the Government's first major private cloud computing initiative and is important central information technology (IT) infrastructure with full cloud computing functions. It aims at more swift and cost-effective delivery of common e-government infrastructure through resource sharing. The new platform will also assist in time saving through streamlined procurement and system implementation, and on-demand service provision.

The platform generates demands for various types of IT professional works and services. It also catalyzes the development of local IT industry in strengthening the related professional skills and business models in cloud computing.

Designed and implemented with reference to international best practices of cloud computing, GovCloud is housed in local data centres and functions in full compliance with stringent government security requirements. The platform initially supports the development of electronic record-keeping and collaborative working systems for shared use

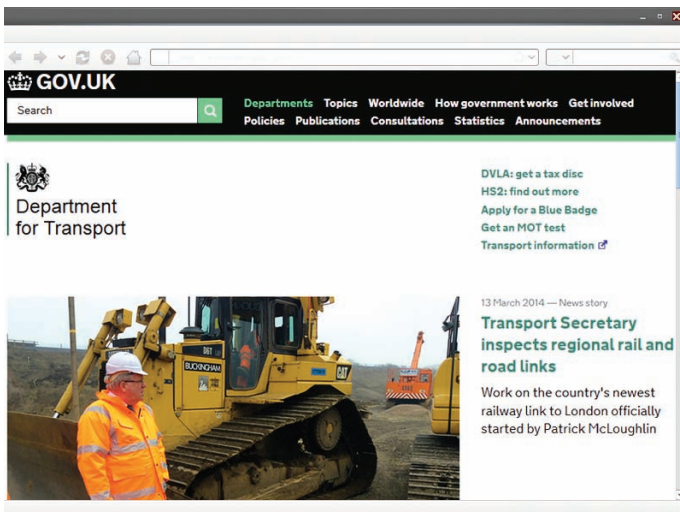


by bureaus and departments. Plans are in place for further roll out for supporting more e-government services. A total of \$242 million has been earmarked to implement GovCloud services in the coming five years.

For Further Information
<http://www.ogcio.gov.hk/>

UK DEPARTMENT OF TRANSPORT TO HANDLE POTHOLE PROBLEM THROUGH SMARTPHONE APP

The UK Department of Transport has revealed its plans to invest an amount of £30,000 (US\$49,000) for developing a mobile app for tracking and reporting the potholes.



Developed by National Cycling Charity and known as 'Fill that hole', the app can be easily downloaded by over 9 million iPhone users of the country for reporting the potholed roads to their councils. It is expected that the new app could boost that figure to over 26 million and is in functional state at the start of 'pothole season' when the winter damage to roads is at its peak.

The app sends local authorities up-to-the-minute information about potholes which the council may not otherwise know about, allowing them to identify trouble spots needing fast action.

Roads Minister Robert Goodwill said, "the government is serious about tackling potholes. At best they are an irritation but at worst they can damage vehicles and pose a serious danger to cyclists. That is why they want people to tell councils where to find them so they can fill them in. This app means more people are going to be able to report potholes more easily".

For Further Information
<https://www.gov.uk/government/organisations/department-for-transport>

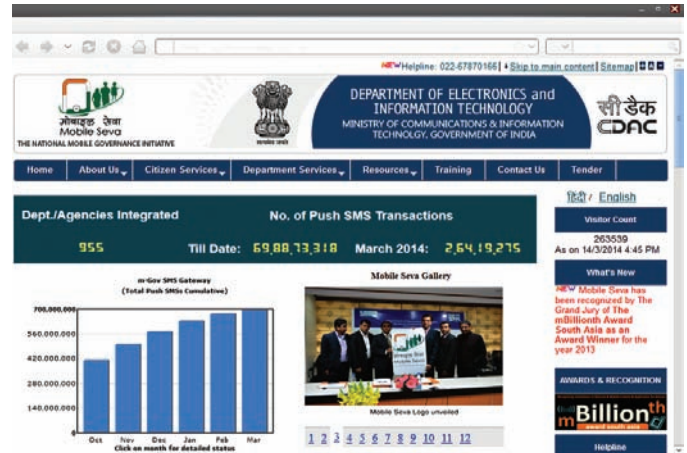
Cyber Governance

MOBILE SEVA- THE NATIONAL MOBILE GOVERNANCE INITIATIVE

Mobile Seva is an innovative initiative which aims at mainstreaming the mobile governance or m-Governance in the country. It provides an integrated platform to various government departments and agencies in India for easy delivery of services to the citizens and businesses using mobile devices. It aims to widen the reach of and access to various public services to the stakeholders by harnessing the innovative potential of mobile applications in dispensing public services. Mobile Seva deploys all possible mobile based channels such as IVRS, SMS, USSD and mobile applications for delivery of services.

The ingeniously designed website of Mobile Seva comes rich in up-to-date content. The website offers content on Mobile Seva and its various subsystems, citizen services, departmental services (Register Pull Service, Register Push Service, eSMS), resources, tenders and contact information. The website displays the exact statistics and current status of Department/Agencies Integrated, No. of Push SMS Transaction, Push SMS Integration, Pull SMS Integration, m-App Development etc. The useful links to Mobile Seva App Store, Mobile Seva Services, Notified Framework for Mobile Governance etc. are also featured. The latest news and notifications are displayed in What's New section while Media Gallery features photos and videos related to Mobile Seva.

The website has a well laid Site Map besides explicitly



<https://mgov.gov.in/home.jsp>

CONTENT: ★★★★★

NAVIGATION AND BROWSER COMPATIBILITY: ★★★★★

DESIGN: ★★★★★

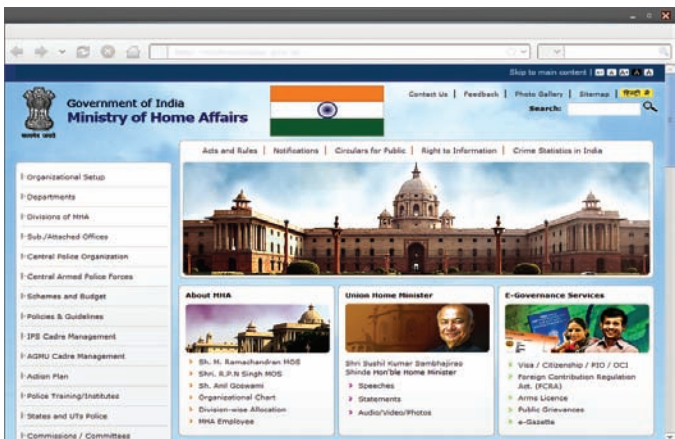
INTERACTIVITY ELEMENTS: ★★★★★

stated Disclaimer, Website Policies and Accessibility Statement. The site can be viewed in multiple languages including English, Hindi. The feedback section of the site invites important comments and feedback from the users. The links to YouTube, twitter and Facebook along with Helpline number are provided to enhance interactivity with users. The site is best viewed with IE7+, Firefox 17.0+, Google Chrome 25.0 at screen resolution of 1024x768.

MINISTRY OF HOME AFFAIRS (MHA)

The Ministry of Home Affairs (MHA) is responsible for maintaining internal security of the country. Besides this, MHA has been also entrusted with maintenance of centre-state relations, para-military forces, border management, disaster management etc.

The information rich website of MHA has been



<http://www.mha.nic.in/>

CONTENT: ★★★★★

NAVIGATION AND BROWSER COMPATIBILITY: ★★★★★

DESIGN: ★★★★★

INTERACTIVITY ELEMENTS: ★★

conscientiously designed with clear identity elements and harmonious mix of colours. A Search button on the top right corner of the homepage ensures quick and easy navigation between the pages. The website is available in both English and Hindi languages. The header region features information related to acts & rules, notifications, circular for public, Right to Information and Crime Statistics in India. The header region also displays various images portrayed with the help of an image slider.

The left side of the site provides information on Organizational Setup of the Ministry, Departments, Divisions of MHA, schemes & budget, policies & guidelines, phone & e-mail directories, annual reports, action plan, online ID card, awards & medals etc. The content rich site also contains content boxes featuring information related to MHA, Union Home Minister, e-Governance services, Current Affairs, Information for job employment, citizens, foreign nationals, Citizen Charter etc. The important notifications of the Ministry are displayed in What's New section in the form of a ticker.

The website has a well laid Site Map besides explicitly stated Terms & Conditions, Privacy Policy, Hyperlink Policy and Accessibility Statement along with FAQs and important downloads. The website can be viewed in both English & Hindi languages. Also, it is compatible with all major browsers.

TELECOM REGULATORY AUTHORITY OF INDIA (TRAI)

The Telecom Regulatory Authority of India (TRAI) was established by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services which were earlier vested in the Central Government. The mission of the authority is to create and nurture conditions for growth of telecommunications in the country by providing a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.

The visually appealing website of the authority deploys judicious use of colours that are sober in nature. The website is rich in content, which is well laid and regularly updated. The header region contains information on the history, structure, organization of TRAI, various regulations, directions, recommendations, consultations, notifications and information for the consumers. This region also displays various images transitioned with the help of an image slider. The content boxes placed below the image furnish information on News & Updates, latest consultations and releases. The footer region highlights information on RTI, related links, Website Policies, Archives, Disclaimer etc. The use of navigation menus, elaborated Sitemap and Search button assists in quick and easy navigation between pages.



<http://www.trai.gov.in/>

CONTENT: ★★★★★

NAVIGATION AND BROWSER COMPATIBILITY: ★★★★★

DESIGN: ★★★★★

INTERACTIVITY ELEMENTS: ★★★★★

The website provides Screen Reader Access and is available in Hindi and English languages. In terms of interactivity, the users can provide their feedback and suggestions in the boxes provided inside the Feedback section. The site is compatible with all major browsers but can best viewed at screen resolution of 1024 X 768.

RAJYA SABHA

The Rajya Sabha or the 'Council of States' is a nomenclature that was announced by the chair in the House on the 23rd August, 1954. Rajya Sabha has played a constructive and effective role in the polity of the country. The house works in spirit of cooperation with Lok Sabha as per the Constitutional mandate and its performance in the legislative field and in influencing the Government policies



<http://rajyasabha.nic.in/>

CONTENT: ★★★★★

NAVIGATION AND BROWSER COMPATIBILITY: ★★★★★

DESIGN: ★★★★★

INTERACTIVITY ELEMENTS: ★★★★★

has been quite significant. Rajya Sabha has prevented hasty legislation and helped in upholding the federal principle. As a federal chamber, it has worked for the unity and integrity of the nation and has reinforced the faith of the people in parliamentary democracy.

The diligently designed website of Rajya Sabha is also a rich repository of latest information. The left corner of homepage features content related to Rajya Sabha, debates, questions, members, committees, procedures, events, secretariats, press releases, RTI etc. The information on Media Advisory Committee, tenders, Official Sites, useful links, Railway Budget 2014-2015, Union Budget 2014-2015, Bills with the Committee, publications and resolutions are also featured on the homepage. There is dedicated section for Audio Visual that provides footage of Rajya Sabha proceedings along with Live Webcast of Rajya Sabha TV.

The website has a well laid Site Map besides clearly laid Website Policies and Terms & Conditions. The website provides screen reader access and can be viewed in English and Hindi languages. It also has a feedback section for obtaining important suggestions and feedback from users. The site exhibits high compatibility with all major browsers.

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In the News

TRAINING ON FORM-S UNDER IVFRT CONDUCTED AT JAIPUR

A one day training programme was organized to implement FORM-S modules under IVFRT-MMP at Suresh Gyan Vihar University, Jaipur on 13th February, 2014. The main objective of this programme was to create awareness among the Institutes and FRO officials on IVFRT Modules. The training programme was jointly conducted by FRO, Jaipur and NIC-IVFRT team, Jaipur. The training programs were formally inaugurated by Hon'ble Vice Chancellor Dr. D.N. Rao, Suresh Gyan Vihar University, Jaipur, Smt. Indu Gupta, DDG & SIO, NIC Rajasthan, Shri Yogesh Goyal, FRO Jaipur, Shri Suresh Arora, Dy. Registrar and Dr. Dinesh Goyal, Suresh Gyan Vihar University, Jaipur. In the inaugural session, they stressed on the need for mandatory requirement of on-line submission of foreigners' stay details as per the Govt. of India notification and BOI

directions. The NIC officials demonstrated the web-based work flow on C-Form & Form-S in detail along with various salient features of the applications. FRO Office & NIC also handover the first authorization letter of FORM-S registration to Suresh Gyan Vihar University, Jaipur. FORM-S is one of the very important Application Module of IVFRT-MMP. FSIS (Foreign Students Information System) is used to capture information about foreign students admitted in Indian educational institutions. It is mandatory for all educational institutions in India admitting foreign students for various courses to register themselves first. After their user-id approved by the competent authority i.e. FRRO/FRO concerned, the said institution will be able to fill the details of foreign students in both c-Form and FSIS. NIC IVFRT team comprised of Shri Rajeev Arora, SSA and Shri M.



IVFRT Sensitization in progress with Smt. Indu Gupta, SIO & DDG, NIC Rajasthan and other officials

Yaseen Husain, SSA imparted lectures on topics like Overview of IVFRT-MMP, Online registration procedure for C-Form & S-Form submission and Registration of Hotel/Dharamshala/Institute/Guest House, Application Processing of online services like Foreigners registration and VISA extension etc., Dynamic reports generated on C-Form & S-Form modules. Shri Yogesh Goyal, FRO Jaipur & Shri Mohan Lal, Dy. SP interacted with all participants in the feedback session along with NIC officers and answered all their queries. The training programme was attended by delegates from major institutes of Jaipur along with five FRO officials.

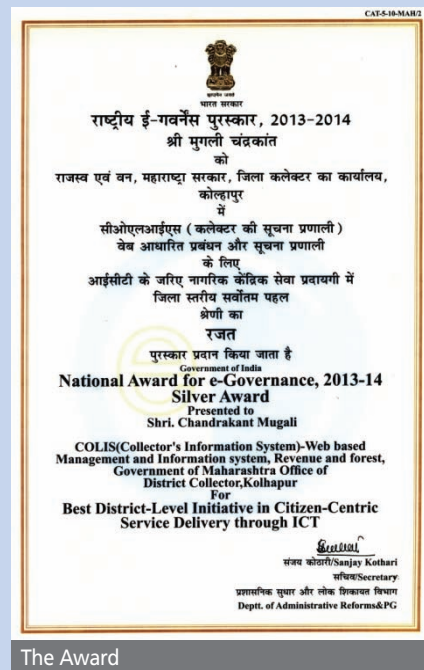
Chandan Sen, Rajasthan

COLLECTOR'S INFORMATION SYSTEM (COLIS) AWARDED WITH NATIONAL AWARD (SILVER) DURING NATIONAL CONFERENCE ON E-GOVERNANCE 2013-2014

Collector's Information System (COLIS) is a web based District Administration application for Collector offices of Maharashtra State developed by NIC District Centre Kolhapur. The application is used for critical administrative work for Revenue Administration at District, Sub Division and Tehsil level offices. COLIS also brings transparency in Revenue Court Case Proceeding and information about revenue court cases are made available on website. It also

has modules for other district administrative functions such as e-Godown (Food-Grain Distribution), e-Web Publication, e-Govt Recovery, e-Pension, e-Election etc.

COLIS was honoured with National Award (Silver) during the National Conference on e-



The Award

Governance held at Kochi on 30-31 January, 2014 under the category, "Best District Level Initiative in Citizen-Centric Service Delivery through ICT". The award was given to the team headed by Shri Chandrakant Mugali by Hon'ble Governor of Kerala, Shri Nikhil Kumar.

**Moiz HusainAli,
Maharashtra**

NIKSHAY BAGS GOLD AWARD DURING THE NATIONAL CONFERENCE ON E-GOVERNANCE 2013-2014 AT KOCHI

NIKSHAY – A web based solution for monitoring of TB Patients was honored with Gold Award during the National Conference on e-Governance held at Kochi on 30-31 January, 2014 under category Sectoral Award – Healthcare.

The award was given by Shri Nikhil Kumar, Hon'ble Governor of Kerala. The gold award was received by Dr. (Mrs.) Shefali Dash, Director General, NIC, Shri Sunil Kumar, Senior Technical Director and HoD, Health Informatics Division, NIC-HQ, Dr. R. S. Gupta, Deputy Director General, Central TB Division (CTD), Directorate General, Health Services and Dr. Kiran Rade, National Consultant, CTD.

NIKSHAY was developed and implemented across the country in a

record time of 6 months with the team efforts of NIC and Central TB Division of Directorate General, Health Services, Ministry of Health & Family Welfare. The technical team led by Shri Sunil Kumar, STD included Shri Anil Rathod, Systems Analyst from NIC-MP, Shri Atul Verma, Scientific Officer, NIC-HQ, Ms. Mala Mittal, STD, NIC, Ms. Soni Sinha, Senior Programmer, Shri Gourav Mehta, Programmer and Ms. Megha Gupta, Scientific Assistant-B, Shri Shashank, Assistant Programmer. The implementation team led by Dr. Niraj Kulshrestha, Additional Deputy Director General included Dr. Kiran Rade, National Consultant, CTD. Continuous guidance and support was provided by Dr. (Mrs.) Shefali Dash, DG, NIC, Shri A. Mohan, the then



Dr R S Gupta, Deputy Director General, Central TB Division, Shri Sunil Kumar, Senior Technical Director, NIC and Dr. Kiran Rade, National Consultant, CTD after receiving the award

Director General, NIC, Shri Rajesh Gera, Deputy Director General, NIC, Dr. R. S. Gupta, Deputy Director General, CTD and Dr. Ashok Kumar, the then Deputy Director General, CTD. The implementation of NIKSHAY has been made possible because of active support of consultants, State TB Officers, District TB Officers and functionaries at Tuberculosis Units and Data Entry Operators across the country.

Ms. Vandana Arya, Delhi

eOFFICE LAUNCHED IN HEALTH & IT DEPARTMENTS OF CHANDIGARH UT

Shri Anil Kumar, IAS Home Secretary-cum-Secretary Health, UT Chandigarh launched eOffice in the Health and Information Technology Departments, UT Chandigarh at UT Secretariat on 15th January 2014. Also present on the occasion were Ms .Prerna Puri, IAS Secretary IT, Dr. S K Bhalla, Director Health, Mr. Upkar Singh, Director IT and other officers from Health and IT Department.

Giving details about the eOffice solution, Shri Ajay Rampal, State Informatics Officer, NIC UT Chandigarh informed that it is a state-of-the-art enterprise software solution that would create a paperless environment. Apart from making the working in Government offices simplified, effective and responsive it would make the information available

on the click of mouse on anytime anywhere basis.

The eOffice solution is an integrated solution comprising of File Management System(eFile), KMS-Knowledge Management system, eLeave – Leave Management System, eTour – Tour Management System, Personnel Information System and Collaboration & Messaging Service. As a first step towards improving efficiency in file handling, eFile a part of e-Office product suite will help to conduct the decision making on files electronically in order to achieve a simplified, responsive, effective and transparent working in all government offices. eFile is a workflow based system that replaces the existing manual handling of files with a more efficient electronic system.



Shri Anil Kumar, IAS Home Secretary-cum-Secretary Health, UT Chandigarh launching the eOffice solution

It would shortly be rolled out in all the departments of Chandigarh Administration. In the new system the files would move electronically right from the dealing hand to the highest approving/decision-making officer. Secretary Health stressed the need to switch over to eOffice solution in order to make the system more transparent and efficient and advised Health and IT Department officials to completely switch over to the solution with immediate effect.

Vivek Verma, Chandigarh

MOBILE BASED WASTE BIN CLEARANCE MONITORING SYSTEM LAUNCHED IN CHENNAI

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Mobile based Waste Bin Clearance Monitoring System was launched by the Honorable Mayor of Chennai Corporation on 05/11/2013. Android based mobiles loaded with the application were distributed to 200 Conservancy Inspectors during the launch.

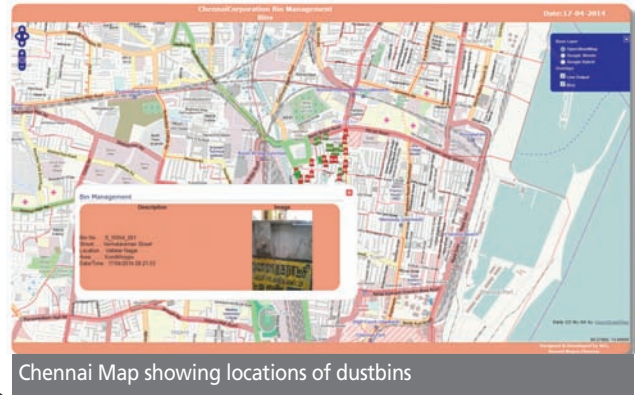
The Application has been developed for Corporation of Chennai by NIC, Tamil Nadu State Centre to monitor the timely clearance of waste bins in Chennai Corporation Area. There are 15 Zones, 200 wards and 29864 streets in the corporation. Every street has been provided with waste bins (group or single) and each bin is given a unique number. The geo location (latitude and longitude) along with photo of all the bins are captured using Android based phones and stored in the central server of Chennai Corporation through web services.

The Conservancy Inspectors are provided with user id and passwords. They are linked to a ward of a zone in

backend application developed by Chennai Corporation. When they successfully logon to the server from mobile, all the localities and streets along with bin numbers are downloaded on their mobile based on their user-id.

This mobile application has the facility to take the photograph of the waste bins along with the Geo-coordinates of the location from where the photo has been taken along with the time-stamp. The inspector can upload this photograph immediately to the central server maintained by the Chennai Corporation.

A GIS based interface developed by NIC, Tamil Nadu State Centre facilitates the senior officials of Chennai Corporation in visualization of the bins on the open street map with different color coding to know the status of the bins on a particular day. Green color on the location of the bin indicates the garbage cleared status,



Chennai Map showing locations of dustbins

orange color indicates uncleared status and red color indicates non-visiting of Conservancy Inspectors to the bin location on that day.

A separate mobile application would shortly be released for citizens which can be downloaded by them on their mobiles. The mobile application can be used by citizens to capture the photograph of any uncleared bin and upload it to the server through web services in Corporation of Chennai Servers. These complaints are monitored by designated officials for and followup action.

R. Gayatri, Chennai

Website of Ministry of Health & Family Welfare launched in a new avatar

S

Shri Keshav Desiraju, Secretary, Department of Health & Family Welfare, Government of India launched the redesigned website of Ministry of Health & Family Welfare on 20/01/2014. The redesigned website is user friendly, well-organized & content enriched. It has a number of special features for visually challenged users and is accessible to all citizens/persons with other disabilities. It has been designed keeping in view all other mandates of Guidelines for India Government Websites (GIGW).

During the launch ceremony, Shri R K Jain, Additional Secretary & DG (CGHS), also the Chairman of Web Monitoring Committee of the Ministry explained about the website content and efforts

invested in re-designing the website. Web Monitoring Committee has approved web policies and the same will be implemented by Shri G. Narayan, Director, BoP, who has been declared Web Information Manager for the website. The ceremony was attended

by Joint Secretaries, Members of the Web Monitoring Committee and Divisional Heads. Secretary, Department of Health & Family Welfare appreciated the efforts of NIC officers for re-designing the website,



Web Information Officer and Divisional Heads for providing and organizing the content for the website.

Ms. Vandana Arya, Delhi

PRIMARY AGRICULTURE COOPERATIVE SOCIETIES WORKSHOPS OF NICSI CONDUCTED FOR RURAL MASSES IN JAIPUR

A series of workshops were conducted to benefit the rural population of Rajasthan on 6th, 7th and 8th February, 2014 under NICSI's Corporate Social Responsibility. The aim of these workshops were to spread awareness about benefits of financial stability & financial inclusion and how socio-economic development in rural areas can be achieved through computerization of grass-root financial organizations like Primary Agriculture Cooperative Societies (PACS). The PACS e-learning portal developed by NICSI was demonstrated in these

workshops. The soon to be launched portal is being built as a one-stop-shop for all the information of PACS. Special emphasis has been given to provide online training to rural masses in their native language regarding PACS related activities through this portal.

The event received enthusiastic participation from District Co-operative Banks & PACS officials. Participants have shown their keen interest in manner in which computerization may help to achieve financial inclusion and monitoring of funds under various schemes at apex level. Key officials providing guidance and vision to this event includes Smt. Indu Gupta, DDG & SIO-Rajasthan, Shri Rajesh Bahadur, MD-NICSI, Shri IPS Sethi, STD, NIC, Shri



Workshop in Progress

Sanjeev Gahlaut, GM, NICSI and Shri A.K. Singh, Consultant Core Banking. Shri R.K. Puri, MD and Shri C.M. Bhardwaj, DGM, Rajasthan State Co-operative Bank extended their full support in making this event successful. The participants appraised the efforts of RSCB & CCBS teams for conducting these workshops.

Chandan Sen, Rajasthan

eIPO FACILITY LAUNCHED FOR INDIAN CITIZENS LIVING IN INDIA & ABROAD

e IPO is a facility to purchase an Indian Postal Order electronically by paying a fee on-line. It is available through e-Post Office Portal i.e. <https://www.epostoffice.gov.in>. The web based s/w has been designed, developed and implemented by s/w development team of NIC -Dak Bhavan under the guidance of Dr. (Mrs.) Shefali S. Dash ,DG(NIC). e-IPO (Electronic Indian Postal Order) was launched on 22nd March 2013 to facilitate Indian citizens abroad across the globe to purchase an e-IPO by paying the fee online to access the information under the RTI Act, 2005 from the Central Public Authorities . After completing a one-time registration on the portal, RTI applicants abroad can use their credit or debit cards to purchase an e-IPO. The site will generate a unique e-IPO number after each purchase, which the applicants can take a print out of and

quote in their RTI application.

It was then brought to the notice of the department that Indian citizens living abroad were facing difficulties in payment of fees for accessing information from Indian Missions/Posts abroad as the facility of e-IPO was not available to them. In order to facilitate obtaining information under RTI Act,2005 by the Indian Citizen living abroad from Indian Missions Posts under Ministry of External Affairs, the facility have been extended from 27th. September 2013 to cover 176 Indian Missions Posts across the globe. With this addition, e-IPO (Electronic Indian Post Order) facility will now cover 2,492 Public Authorities in India and abroad under Central Ministries, Departments, UTs and NCT Delhi. As



NIC-DOP Team with Ms.P.Gopinath, Secretary (Posts), Dr. (Mrs.) Shefali S. Dash, DG (NIC) on the eve of Launch Function held at DOP-Dak Bhavan on 13th. Feb 2014. Standing From Right to Left – Shri Vineet Kumar, Shri Ravi Kumar, Dr. Rakesh Gupta, Ms. Pooja Sethi, Ms. P.Gopinath, Dr. Shefali S. Dash, Shri Mukesh Kumar Aggarwal, Shri Sudidhi Das, Ms. Harsimran Kaur

of now more than 100 (hundred) Indian Missions across the globe have posted 'ePost Office Portal' link on their websites.

On 13th, Feb 2014 this service got extended to Indian citizens living in India & was launched by Secretary (Posts), Department of Posts along with two other enhancements carried out by NIC Team.

Dr. Rakesh Gupta & Ravi Kumar, Delhi