Informatics

Tribute
to a Great
Visionary

Dr.N.Seshagiri
(1940 - 2013)

EDITORIAL

Dr. N. Seshagiri, the founder Director General of National Informatics Centre and the patriarch of India's IT advancements, is no more with us today. The man of unchallenged wisdom, Dr. Seshagiri has played a key role in the establishment of ICT in India. His futuristic thinking and approach lead to the genesis of liberal software and hardware policies. He nurtured a whole armada of scientists and technocrats, which further strengthened the cause of e-Governance in the country. I feel much privileged and proud to have closely associated with him on several important projects/missions and consider him as an inspirational role model.

Dr. Seshagiri's sad demise has left behind an irreparable void, but he will be reckoned as a messiah of ICT for generations of technocrats. We dedicate this edition of Informatics to this great visionary and thus pray for the departed soul to rest in peace.

In this issue's From the States/UTs section, we take you through a journey of 25 Glorious Years of NIC Rajasthan, and also an article focusing on various ICT initiatives of the Lakshadweep Islands. The Technology Update section this time discusses the Open Source Hardware and the Importance of Standards and its Use in Healthcare. The e-Gov Products and Services section gives you an insight on various e-Governance related products & services initiated benefitting the common masses.

The section District Informatics tells you the success stories of ICT in the districts of Rohtas, Sehore and Rohtak. Our other regular sections such as International e-Gov Updates, Cyber Governance and In the News would apprise you on the latest developments in technology for better governance in India and across the world as well.

Wish you a pleasant reading.

NEETA VERMA

We invite your valuable articles and write-ups to be published in Informatics.

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

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Tribute to a Great Visionary:
Dr. N. Seshagiri (1940 to 2013)

Dr. N. Seshagiri, founder and the former Director General of National Informatics Centre, left for heavenly abode on Sunday the 26th of May 2013. Dr. Seshagiri was blessed with immense intellectual potential and high technical quotient. As the mastermind of the Nationwide Computer Network (NICNET), Dr.Seshagiri drafted various software and hardware policies that revolutionized Information Technology (IT) in the country. He was instrumental in setting up of the Software Technology Parks in India and was also the crusader of e-Governance movement in the country. Today, the founding father of NIC may not be with us, but his inspiring ideas will continue to guide us and the generations to come.
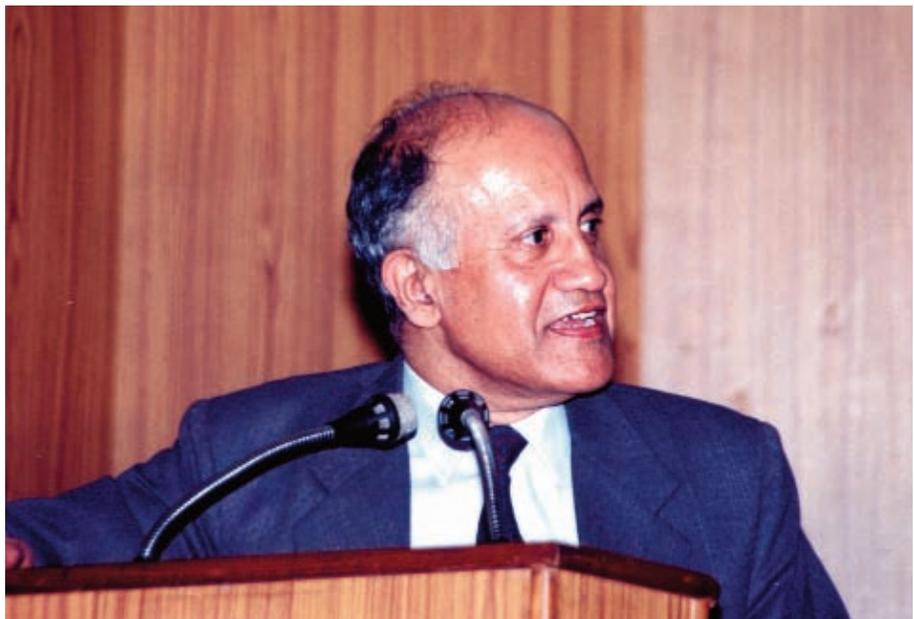
A visionary, a crusader, a philosopher, a technocrat, an evangelist... words do fall short to describe the enigmatic personality of Dr. Narasimaiah Seshagiri. As a man of path-breaking wisdom and a catalyst of IT revolution in India, Dr. Seshagiri has made the ICT culture palpable in various sectors across the country.

Born on 10th May 1940, Dr. Seshagiri received his Ph.D in Microwave Telecommunication Engineering from Indian Institute of Science (IISc) Bangalore. In 1966, he moved to Tata Institute of Fundamental Research (TIFR) and worked on satellite communications and space-craft design. He was honoured with the prestigious "Vikram Sarabhai" Award for 'optimal design simulation of low energy consumption space-craft design'. Professor MGK Menon who was the Director of TIFR during the period, discovered the immense talent and intellect of Dr. Seshagiri and encouraged him to assist in setting-up of the Electronics Commission in India. This involved evolving of policy and planning of technology to improve the quality of life of the masses.

Dr. Seshagiri's vision led to the successful preparation of the first document on Perspective Plan for growth of Electronics Industry in India. As a follow up of the acceptance of this report at the Cabinet level, the Central Government approved the setting up of a National Computer Centre in New Delhi. This new centre was envisaged to function as a National level repository of information linked to various analytical reports for promotion of industrial growth in key, thrust areas. The evolution of licensing policy focused on indigenous growth of electronics production and promotion of R&D was another focus area.
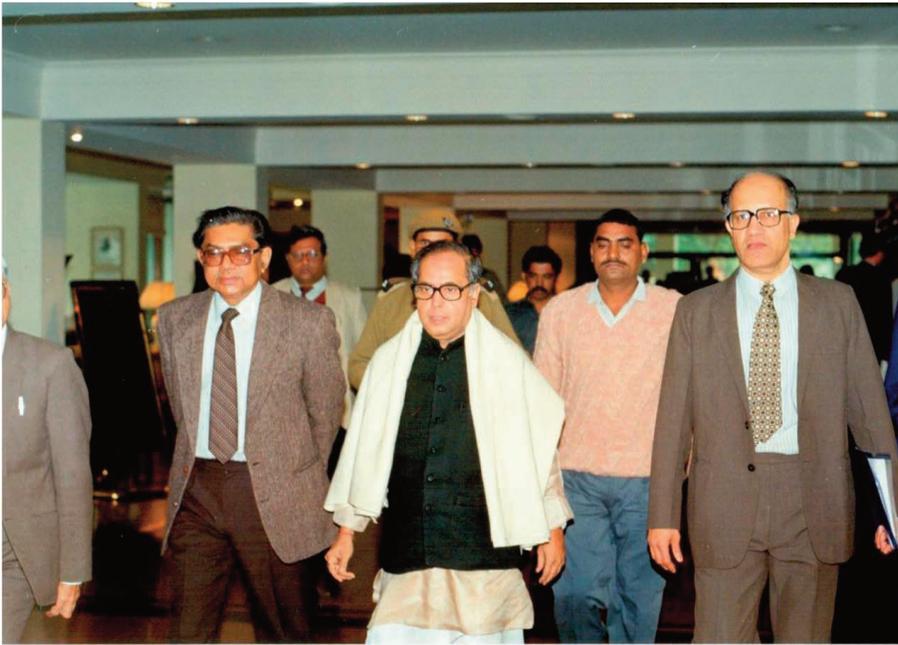
IPAG AND NIC

Recognizing Dr. Seshagiri's ability for hard work coupled with his pioneering and novel thinking, Prof. M.G.K. Menon facilitated the carving out of a National Centre for Electronics and set it up as separate entity under Dr.Seshagiri. Titled as Information Planning & Analysis Group (IPAG), this new setup offered numerous policy initiatives governing industrial promotion, encouraging indigenization efforts with quality R&D for reduction of imports and thus savings in Foreign Exchange.

Towards the latter half of 1976, focusing on the need and importance of right information at the right place at the right time, the Electronics Commission decided to retain policy framing and its implementation related work with Department of Electronics. It was decided to provide special impetus to informatics-led improvements in the decision making process of various Government Departments and Ministries. This initiative was exclusively directed to usher-inoperational excellence of governance both at Central and State levels. This led to the institution of National Informatics Centre (NIC) with Dr. Seshagirias its first founding Director General.

IT POLICIES IN INDIA

Dr. Seshagiri played an instrumental role in drafting the software and hardware policies in India. The first Computer Policy launched in 1983 has transformed the Information Technology scenario in the country. He also took a lead role in the development of Computer Hardware Policy 1984, and the first Software Development, Export and Training Policy in 1986.

In 1998, under the Chairmanship of Prof. MGK Menon, he was the Member-Convenor of the prestigious National Task Force on IT which drafted the National IT Policy with 108 recommendations to "transform India into a Global Software Power by 2008".

NICNET

Dr. Seshagiri aspired to bring in IT revolution at the grass-root level for the benefit of the common masses. One of his missions was to introduce computer and Networks at all levels in the government. He worked religiously to fulfill this mission, which lead to the origin of Nationwide Computer Network or NICNET program. He played a decisive role in setting up the DISNIC Programme in the country to usher in the ICT revolution in more than 400 districts in 1987. Dr. Seshagiri promoted setting up of the first VSAT network, the very first one outside the US.

SOFTWARE TECHNOLOGY PARKS IN INDIA (STPI)

Dr. Seshagirihad played an influential role in setting up of the Software Technology Parks of India, which will be reckoned for generations to come. The STPI has catalyzed the emergence of Indian IT sector, which further assisted Indian IT industry to get connected to its

efforts caused establishment of a robust e-Governance framework across the country. He is indeed the "Father of e-Governance Movement in India". He was instrumental in developing many innovative e-Governance applications in India. During his 25-year leadership of NIC, he groomed a generation of scientists, engineers and technocrats to provide leadership in e- Governance across the country.

In 1995, Dr. Seshagiri planned to extend the idea of Informatics into the agriculture sector in order to benefit farmers, extension workers and others associated with the agriculture industry. Today, Agriculture Informatics is developed into a full-scale discipline. He

global counterparts. Dr. Seshagiri strived hard to get the US-based global chip maker Texas Instruments to open its offshore development centre in Bangalore, with his 'flood-in and flood-out software policy'. Apart from shaping software policies, he made the software exports and systems manufacturing industry in India a reality. Mentioning about his charisma, NR Narayana Murthy once said: **"He is a man with no axe to grind, doesn't take any sides, and takes your argument coolly if logic is on your side".**

e-GOVERNANCE MOVEMENT

Dr. Seshagiri's vision helped in initiating the e-Governance movement in India. Throughout 80's and 90's, his dedicated

was also an eminent propagandist of Bio-Informatics.

A GREAT VISIONARY

Dr. Seshagiri was instrumental in establishing and grooming a number of Institutions. Some of these leading institutions are CDAC, NCTI, NICSI to name a few. He authored over 20 books and more than 100 research papers. His latest contribution, **27th Volume of Rural Survey of India** was published in March 2013.

Dr. Seshagiri's optimism and enthusiasm led to the origin of many technological benchmarks including a full-fledged X.25 based network using satellite communication.

The Public Private Partnership or PPP Model, synonymous with many

Dr. Seshagiri receiving Padma Bhushan Award from then Hon'ble President of India Dr. A. P. J. Abdul Kalam in 2005

e-Governance projects today in the country, was his brainchild. He was also on the forefront to take up planning and analysis in case of many technological projects.

Dr. Seshagiri was always an exponent when it comes to inducting any new form of technology. He was credited for the introduction of first-ever Desktop System in Hindi in 1985. Besides this, the Medical Records System, GIS work, and Jurisprudence are all inceptions of this eminent technologist.

AWARDS AND RECOGNITIONS

Recognizing his immense contribution towards the growth of IT sector in India and its applications in governance, Dr. Seshagiri was conferred with Padma Bhushan in the year 2005. He was also honoured at national and international levels. Vikram Sarabhai Award, O P Bhasin Award, Asiad Jyoti Award, Karnataka Rajya-Utsav Jyoti Award, Dataquest Lifetime Achievement Award to name a few.

Dr. Seshagiri was also a Fellow of many premier professional institutions including National Academy of Sciences, Indian Academy of Sciences, Computer Society of India and IETE. He was also an Elected Governor of the International Council for Computer Communication.

Dr. N. Seshagiri passed away on 26th May, 2013 at the age of 73. Today, the founding father of NIC may not be with us, but his inspiring ideas and aspirations will continue to guide us, and the generations to come. We pray for his eternal soul to rest in peace.

Compiled By:
Informatics Editorial Team
With Inputs from many NICians

NIKSHAY–

A Web-based Solution for Monitoring of TB Patients

To monitor Revised National Tuberculosis Programme (RNTCP) effectively, a web-enabled and case-based monitoring application called NIKSHAY has been developed by National Informatics Centre (NIC). This is used by health functionaries at various levels across the country in association with Central TB Division (CTD), Ministry of Health & Family Welfare. NIKSHAY covers various aspects of controlling TB using technological innovations. Apart from web based technology, SMS services have been used effectively for communication with patients and monitoring the programme on day-to-day basis.

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Edited by Mohan Das Viswam

The Revised National Tuberculosis Control Program (RNTCP), incorporating the components of the internationally recommended DOTS strategy for control of TB has been implemented across the country for more than a decade. The spread of Human Immunodeficiency Virus (HIV) during the last 2 decades, the emergence of various forms of drug-resistant TB and unregulated, vast private health sector pose additional challenges to effective TB control.

To monitor the data on individual TB patients across the country, Government of India decided to develop a system called NIKSHAY, which is a combination of two Hindi words- NI (निवारण) and KSHAY (क्षय) meaning eradication of tuberculosis. NIKSHAY (http://nikshay.gov.in) is a web enabled application, which facilitates the monitoring of universal access to TB patients' data by all stakeholders. The system has been developed jointly by the Central TB Division of Ministry of Health and Family Welfare and National Informatics Centre (NIC). This was launched by the Government of India in June 2012 with issuance of required administrative directions from Central TB Division for use of NIKSHAY. A gazette notification was published by the Government of India mandating all private health establishments to inform the details of TB patients treated by them to NIKSHAY repository.

NIKSHAY has two broad objectives. One is to create a database of all TB patients including Multi-Drug Resistant cases across the country and the second is to use this database for monitoring and for research purposes at all levels for the eradication of TB effectively in India.

OVERVIEW OF NIKSHAY

The use of Information Technology tools and techniques made it possible for the grass-root level healthcare providers to track data of every TB patient. The most

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DDG (TB), Central TB Division

'Information Technology has tremendous potential to improve the health services. Central TB Division, Directorate General of Health Services, Ministry of Health & Family Welfare in association with National Informatics Centre (NIC) has developed a case based web based ICT application NIKSHAY, wherein details of all TB patients across the country are entered. The application is used for monitoring and tracking of individual patients notified to the RNTCP. Till now, we have 1.2 million cases entered in this application.

NIKSHAY envisages e-notification of all types of TB cases with provision of free quality assured drugs. NIKSHAY will also be used for e-payments of remunerations to the contractual staff, honorarium for DOT Providers and payments of partners under the programme. We are also looking forward for linkages with e-services like PDS system for provision of nutrition to TB patients with the help of NIC.'

significant feature of NIKSHAY is that it promotes the use of IT upto Tuberculosis Unit (TU) level, thus marginalizing the digital divide. To extend the reach Central TB Division has also developed a Video
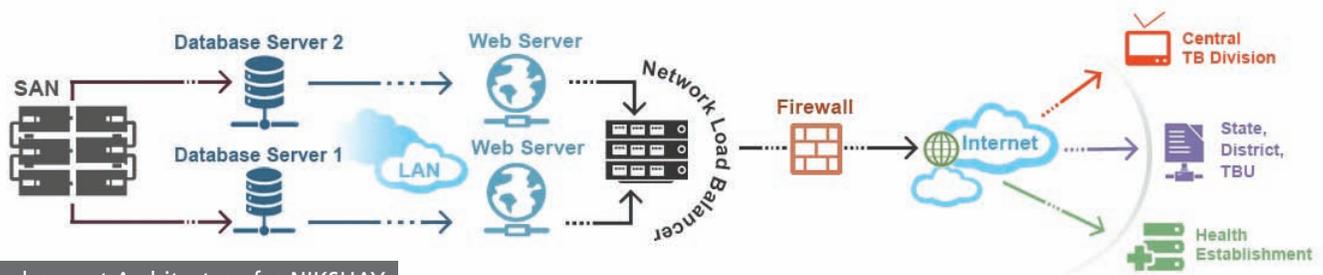
Deployment Architecture for NIKSHAY

based training module (in Hindi and English).

NIKSHAY has been implemented at 6 levels across the country i.e. National, State, District & Tuberculosis Unit (TU), Culture & Drug Susceptibility Testing Labs, DRTB Centres. Data entry in terms of registering the TB patients, pre-treatment and follow-up tests, treatment, HIV and contact tracing details is done at TU level. Such TB patient's database is being used at District, State and National level for monitoring purposes.

The Government's health establishments not covered under RNTCP have to inform about TB patients. NIKSHAY facilitates the registration of all such health establishments and entry of their TB patients.

NIKSHAY utilizes the Short Message Service (SMS) technology effectively. Through SMS, NIKSHAY communicates with TB patients & grass-root level healthcare service providers as well as health and family welfare policy makers, health managers and health administrators at different tiers of the Healthcare Delivery System. Whenever a new patient is registered on NIKSHAY, SMS is sent to the patient with registration ID and details of DOTS Operator along with an advisory note to take the regular medicine. Daily SMS is sent to all monitoring authorities from Central TB Division (CTD) to State TB Officers (STO), District TB Officers (DTO) giving the number of TB patients, Designated Microscopic Centre (DMC)/Peripheral Health Interface (PHI) registered, profiles of STOs, DTOs and TUs updated, entry of contractual manpower, Health establishments registered and patients that have been notified.

NIKSHAY is a role based web application with 6 distinct roles allocated to different levels as per details given in the table.

CURRENT STATUS
NIKSHAY was launched on 4 June, 2012 at http://www.nikshay.gov.in. As of now, more than 12.5 lakh TB patients have been registered. Details of 38,051 DMCs/PHIs, 2490 TBUs, 655 DTOs and 35 STOs are available on NIKSHAY.

TECHNOLOGY ADOPTED
NIKSHAY has been developed using Windows Server 2008 R2 as Operating System, MS SQL Server 2008 Enterprise as Database, Internet Information Server (IIS) as Web Server and .NET (C#) as development tool.

IMPACT
After the operationalization of NIKSHAY, substantial improvements have been observed in RNTCP operations. The programme implementing authorities at all levels are now enabled to retrieve details of any TB patient and if necessary, contact them for monitoring their DOTS administration schedule. Another benefit of NIKSHAY is a correlation between TB & HIV, leading to an outcome analysis of treatment, which may give new directions to TB treatment in the coming years.

Role	Modules
Tuberculosis Unit Level	TB Patient Registration, Contact Tracing, HIV Treatment, Treatment Outcome, Follow Up, TB Notification Patient Details Entry, Search TB Patient by Patient ID or Navigation, Master Management of DMC/PHI, User Management, Reports, Training Video
District Level	TB Notification Health Establishment Registration and Patient Details Entry, Contractual Staff Entry at district level, Search TB Patient by Patient ID or Navigation, Master Management, User Management, Reports
State Level	Search TB Patient by Patient ID or Navigation, Contractual Staff Entry at the state level, User Management of TUs and districts under the state, Master Management of TUs under all districts of the state, Reports
Central TB Division	User Management for State/District and TUs, Master Management, Data Management, Contractual Staff Entry at CTD level, Search TB Patient by Patient ID or Navigation, Reports, Dash Board Reports
Culture & Drug susceptibility Laboratories	User Management, Master Management (CDSLAB Coverage Area mapping), Human Resource Management (Contractual Staff Details), CDST Details (Registration, Smear Microscopy Results, Molecular TB/DST Results, Culture Results, DST Results)
DRTB Centres	User Management, Master Management (DRTBC Coverage Area Mapping), Human Resource Management (Contraual Staff Details), MDR Patients (Registration, Decisions Details, HIV Treatment, Treatment Details, Lab Results Details, Treatment Outcome)

eDMAIs–
Delivering Mechanized Agricultural Implements System

Improved farm implements and machinery are used for different farm operations to increase productivity of land and labour through timeliness of operations, efficient use of inputs, improvement in the quality of produce, safety and comfort of farmers, reduction in loss of produce and drudgery of farmers. Mechanization results in saved labor, which can be utilized for processing of agricultural produce, marketing of fresh & processed products, manufacturing & sale of improved tools & implements and other allied activities.

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Mechanized agriculture is the process of using agricultural machinery to enhance productivity. Govt. of Odisha is assisting farmers with subsidy to procure different farm implements. Director of Agriculture and Food Production (A&FP), implemented eDMAIs - a monitoring system to bring transparency and accountability in the delivery of implements to the farmers along with online payment of subsidy to the vendors (http://agrisnetodisha.ori.nic.in).

MAJOR OBJECTIVES

- Online registration of vendors
- Entry of farmers' applications
- Identity verification of the beneficiaries
- Monitoring implements delivery to the beneficiaries
- Quick disposal of subsidy amount to the vendor/beneficiary/bank

STAKEHOLDERS

- Directorate of Agriculture and Food Production, Odisha
- Deputy Director Agriculture (DDA) & District Agriculture Officer (DAO) of all districts of Odisha
- Assistant Agriculture Engineers (AAE) of all districts of Odisha
- Vendors of various mechanized instruments
- Bank of India, Bhubaneswar branch
- Farmers across the State

ROLE OF VENDORS

Since mechanized instruments are supplied by the registered vendors, the instrument details are filled up online by the vendor and a system generated SMS alert is sent to the concerned AAE for verification.

ROLE OF AAE

AAE goes through the pending list of all

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Director

ICT will enable the Agriculture sector to serve the farmers in an efficient way. By speeding up the processes, farmers will be encouraged in their efforts. Minimal bureaucracy, authenticated transactions and speedier disbursal are all essential for today's agricultural sector. We can not afford to be left behind in technological solutions.

instruments online and accordingly visit the site for verification. After verification, the machine is photographed along with the beneficiary and the AAE & is uploaded on the portal. Simultaneously, a computer generated SMS is sent to the concerned registered vendor. Then, the vendor submits its bill directly to the bank for release of subsidy.

ROLE OF BANK

Banks follow 2-step verification for release of subsidy:

Step 1
Banks check/scrutinize all the documents submitted by the vendor with the online data.

Step 2
Banks verify the scrutinized documents again relating to the financial part and then finally release the subsidy to the farmers/vendors.

Thus, G2G, G2B and G2C services are provided by the system.

G2G SERVICES

Ninety seven District Agriculture Circles, thirty District Agriculture Offices (DAO) are working under the Directorate of A & FP. Permit issued from DAO are constantly monitored by the officers of engineering section of the Directorate, as well as by all District Collectorate and Ministry of Agriculture, Govt. of India.

G2B SERVICES

Online issuance of permit is reflected at the pages of Registered Implement Dealers to negotiate with the farmers regarding the cost of implements. The system also facilitates banks to release the subsidy amount to the dealers and the beneficiaries after proper online verification.

G2C SERVICES

The citizens (farmers) get updated status of their applications at each stage through SMS.

KEY DELIVERABLES

• DAO circle wise report on target, permit

Shri R. S. Gopalan, IAS, Director, Directorate of Agriculture & Food Production andSmt. Sarita Sahoo, AGRISNET Coordinator NIC, Odisha receiving the award from Shri Ashok Gehlot, Hon'ble Chief Minister of Rajasthan and Shri V. Narayanswamy, Hon'ble Minister of State for PMO and Administrative Reforms

issued, machines supplied, verification made and release of payment

• District wise/Block wise reports on all parameters

• Total Permits Generated Report

• Permits Invalid Report

• All the Financial Reports

• Rejection Report of AAEs/banks with cause achievements

• Schemes including Work plan, State plan and Rashtriya Krishi Vikash Yojana (RKVY) etc are integrated with the system.

• 685 dealers have registered in 934 categories of mechanized instruments over the portal.

• Since 2012, 44028 applications have been processed while 14,189 farmers have been benefited.

• Rs.82.14 crore have been released towards the subsidy.

• Subsidy is released within 3 days after online verification by the designated bank whereas previously it took months.

• Won National Award for e-Governance, 2012-13 for outstanding performance in citizen-centric service delivery category.

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Knowledge Management System

eOffice KMS is a simple, easy to use and rich feature, browser based document management system.

It transforms both paper and electronic documents into knowledge assets that can be instantly used by the organization workforce.

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Edited by Mohan Das Viswam

Government offices need to manage large volumes of documents of various categories. These documents can be Policies, Forms, Acts & Regulations, Circulars, Guidelines, Standards and Manuals. Maintaining a central, single repository of documents from where, all department/ministry users can access the information, helps in reducing the administrative overload, leading to better management of documents.

eOffice enables users to create and manage electronic documents that can be searched, viewed, and shared. It is well capable of keeping track of the different versions modified by different users (Tracking history). It also contains a dynamic workflow to keep document at various stages.

BACKGROUND

Knowledge and Document Management Systems are built ensuring the following set of features:

- **Metadata:** The system contains metadata like title, description, author, keywords etc for easy segregation of documents.

- **Indexing:** Index and create catalogs for easy searching

- **Storage and Retrieval:** The system ensures easy storage and retrieval of electronic documents.

- **Security:** The system ensures that which information has to be shown to whom and when.

- **Workflow:** The system has a workflow to control the various stages of the document.

- **Collaboration:** Users can share, comment and also able to get alerts on the documents.

- **Versioning:** Versioning allows users to

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Director, LBSNAA, Mussoorie

eOffice KMS has provided LBSNAA employees a one-stop platform to access organizational knowledge, hitherto scattered in silos. It has improved transparency, efficiency and speed in decision-making. We invariably showcase our ICT initiatives including e-office in all training programmes-induction as well as inservice which helps disseminate such good practices across the country.

retrieve previous versions and to continue work from a selected point.

- **Searching:** Easy and advance search helps users to retrieve the documents easily.

- **Publishing:** This feature ensures that the documents are accessible to all the users.

HOW eOFFICE KMS WORKS?

eOffice KMS is a web based document management system with advanced range of features.

eOffice KMS supports creation of electronic documents either by uploading an electronic file or by creating an online document using advanced text editor.

The document so created can be shared with other users or can be submitted for a review to publish it for all other users by the reviewer. This serves as Notice Board to the organization.

Documents are managed in two separate repositories: a central repository acting as the one single repository for the organization. Documents are kept in a categorized manner in the form of folders and subfolders. The other repository is "the user's my repository" where users can create their own documents and also share these documents with other users. These repositories also act as the document stores and the documents can be easily accessed any where using internet and web browser.

eOffice KMS also ensures high security of the documents. It manages what and which information is to be shared with whom and when. The documents and folders are secured using the flexible dynamic workflow, build according to the need of organization.

Collaboration is another feature provided in eOffice KMS. A document can be shared with other users. Users can provide comments on the documents. Documents and folders can be subscribed for alerts. It also supports the advanced editing option with working copy support using the check out and check in options.

Document versioning with comparison is also available with eOffice KMS. Searching and retrieving documents in eOffice KMS is simple. The system provides a live search feature along with an advance search option to search the documents based on their title, description or any other content placed within the documents.

eOffice KMS is now extended to mobile devices using mOffice Android App and Java based mobile browser. This has ensured that the documents can now be accessed and shared while on the move.

SALIENT FEATURES OF eOFFICE KMS

• **Document & Folder Creation & Management:** The system facilitates easy creation of electronic documents by uploading or from email inbox.

• **Easy Searching & Retrieval:** It ensures easy searching and access of documents anywhere, anytime.

• **Document Security:** Role based access for each document

• **Collaboration Features:** KMS helps in sharing, subscriptions and discussion & alerts on documents.

• **Document Versioning:** Every change in document is kept as separate version along with the track change feature.

• **Easy Sharing:** Personal Contact List has been provided in the system for easy sharing.

• **Working Copy Support:** This feature helps in avoiding duplicity of work among multiple users.

• **Multi-lingual Support:** This feature supports any Unicode supported languages.

BENEFITS OF KMS

• Organization wise access to documents

• Quick and easy retrieval of documents

• Central storage of documents with access permission ensures enhanced security and integrity of documents

• Securely stores and indexes documents for fast retrieval

• Reduced storage cost

TECHNOLOGY ARCHITECTURE

eOffice KMS is built using Open Source Technology Framework. It has been developed using Python and designed to work with Zope and Plone (Content Management System). The RDBMS used in backend is PostgreSQL.

IMPLEMENTATION

eOffice KMS has been successfully implemented in over 55 Ministries and Departments of Government of India, State Governments, District Collectorates and PSUs. Some of the major implementations along its statistics are depicted in the bar graph (fig. I) The offline desktop based version of the KMS is in the process of development.


Figure I

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ISES–
Integrated Socio-Economic Survey of Students

The Government of Andhra Pradesh has desired to deliver the citizen–centric services from a centralized location through all citizen service centres such as e-Seva, AP Online, CSCs across the state under a new initiative called "MeeSeva". A web based application-ISES has been designed and developed by NIC Hyderabad for preparation of the digitally signed database of student records so as to enable electronic delivery of various certificates across the counter.

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Mee Seva is an easier, faster, online, web based, transparent and secured citizen-centric service facility to provide convenient access to the citizens without any need for them to go to multiple Government offices for getting their work done. Efforts have been invested to offer various services through a seamless and integrated architecture and a friendly interface to the citizens availing services from various departments.

The certificates/documents issued under Mee Seva project are digitally signed by the authorized signatories in consonance with the Information Technology (Amendment) Act, 2008 and Andhra Pradesh Information Technology Rules (Electronic Service Delivery) 2011. These certificates/documents are printed on secured stationary which has various security features to minimize circulation of fake certificates. Every transaction in Mee Seva is monitored and tracked through a web based system. This enables strict adherence to the citizen charter and limits the time pertaining to these services. The facility has been provided to deliver the certificates/documents through post, based on the person's choice. The person also receives SMS alert once the request is approved/rejected.

Services delivered through Mee Seva are broadly classified into Category "A" and Category "B". Category "A" services can be delivered across the counter by the Mee Seva operator. Availability of digitally signed data is the prerequisite for these services. Category "B" services require back-end operations from concerned office of the issuing authority.

ISES Data & Process Flow
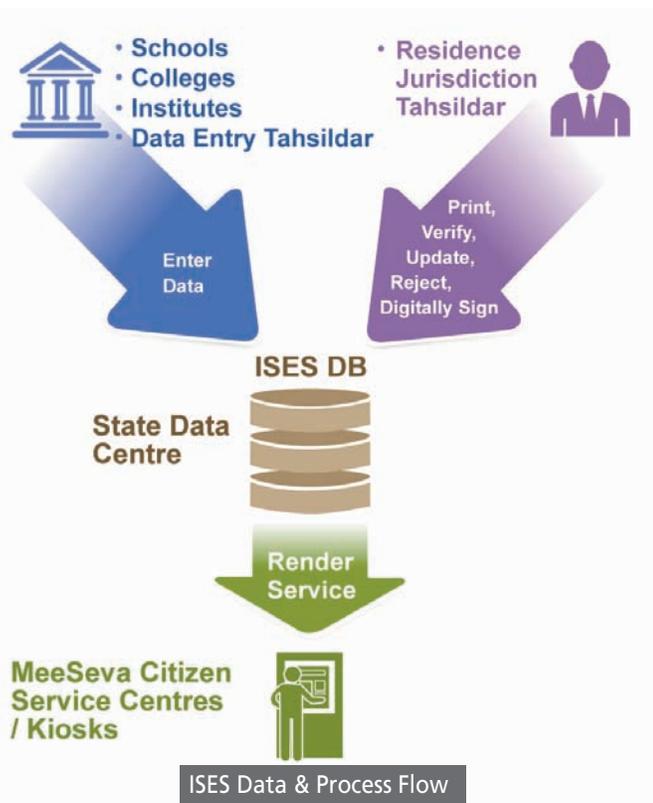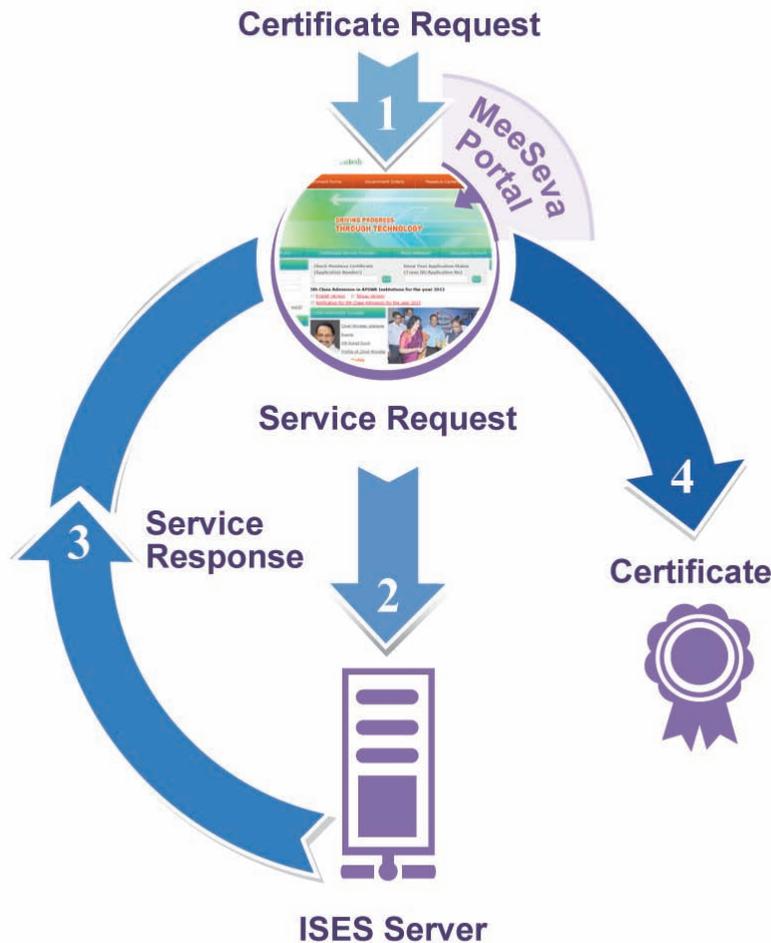
ISES Service Life Cycle Diagram

INTEGRATED SOCIO-ECONOMIC SURVEY OF STUDENTS

As part of the MeeSeva, the Government took a decision to conduct a survey of all students studying in SSC (Class X) and above and create a digitally signed database of their Income, Residence and Integrated (Caste-Nativity-Date of Birth) Certificates.

A web based application- ISES, for this purpose, was designed and developed by National Informatics Centre, Hyderabad, to aid the department in the preparation of the digitally signed database of student records so as to enable electronic delivery of the above mentioned certificates across the counter (Category A services).

TECHNOLOGY

Web-based, two-tier technology with Microsoft ASP.Net in C# with backend on Microsoft SQL Server 2008 R2 and SQL Server Reporting Services is used for the genesis of ISES application.

OTHER INNOVATIVE TECHNOLOGIES RELATED TO THIS APPLICATION

1. Use of state-of-the-art technology, Service Oriented Architecture (SOA) for integrating the ISES Database to MeeSeva Portal for service delivery

2. Use of Digital Signatures following the ESD (Electronic Service Delivery) rules, authorizing Tahsildars to digitally sign the students' data

3. Conception of NIC-AP-DIGISIGNER, a Digital Signature Component devised by NIC, Hyderabad with the support from Microsoft Inc. The component is applied for signing student data and verification of signed data during service delivery.

4. Use of SSRS for printing a variety of District, Mandal, Village, Municipality and Ward-wise Reports

5. SMS alerts to the students soon after digitally signing of the respective student data

6. Use of AJAX technology for an efficient and enhanced user interface

SALIENT FEATURES OF THE SOFTWARE APPLICATION PACKAGE

1. Devise of a Java-script callable COM/ActiveX wrapper for Digitally signing data records

2. Unique ID provision for every student across the state

3. Upload facility to store Income, Caste, Address Verification Reports

4. Facility to export/print reports in various formats, viz., PDF, MS-Word, MS-Excel, XML

5. Digitally signing student records either in bulk or individually

6. Workflow escalation for digitally signing Special Castes Certificates

7. Revoke signatures with reason capture

8. Audit trail on revocation of signatures

9. Return/Reject procedure for wrongly dealt records

10. Provision of abstract, detailed reports for every administrative level (State, District, Division, Tehsil)

CURRENT STATUS

ISES application has become operational since 1st January, 2012. Till date, 1.5 lakh Income Certificates, 1.5 lakh Integrated Certificates, and 0.30 lakh Residence Certificates have been issued to the students across the counter from various MeeSeva centres/kiosks.

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Empowering People Participation in Decentralized Planning Process through

INTEGRATED SPIDER & e-MANCHITRA GEO PORTALS

To overcome the maladies affecting the manual system and to reduce the workload and to increase the efficiency, transparency, visualization; SPIDER & e-MANCHITRA portals have been developed and integrated. The integration of SPIDER & e-MANCHITRA Geo portals has made information visualization easier, transparent and useful.

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Edited by Anshu Rohatgi

The concept of good governance in modern times has gone through many phases. In the pre-independence period Gandhiji's vision of good governance essentially meant democratic decentralization which entailed power to the Gram Panchayats (GPs) and people at the lowest level of political hierarchy. By the early 1990s, the idea of good governance was freed from the element of coercion and external force, spurring a number of policy initiatives based on the demand for participatory development, transparency in decision making and empowerment of people to decide and shape their destiny. After independence, both the Central and State Governments of India, are trying to remove inter & intra regional disparities at macro & micro levels. The 73rd and 74th amendments of the Constitution have bestowed greater responsibilities and powers to the local bodies, positioning them as the third tier of governance. The Planning Department of Uttar Pradesh Government (GoUP) is collecting data on more than 4,000 parameters from various socio-economic sectors like Agriculture, Industry, Social Sector, Power, Urban Facilities, Rural Infrastructural Facilities etc at village, block and district levels.

These information are annually published and maintained in the form of block, district and divisional Sankhyikiya Patrikas (SPs) in more than 100 tables/sub-tables and 1000 maps, since early seventies.

INTEGRATED SPIDER AND e-MANCHITRA GEO PORTALS

To overcome the maladies affecting the manual system and to reduce the workload and to increase the efficiency, transparency, visualization; SPIDER (Sankhyikiya Patrika: Internet based Data Entry and Retrieval (http://updes.up.nic.in/spatrika)) and e-MANCHITRA (Map based Analytical
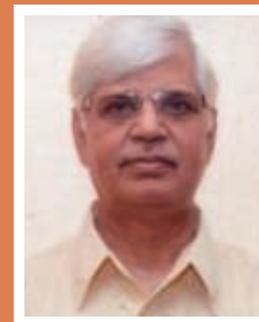
NAVEEN CHANDRA BAJPEI
Dy. Chairman, State Planning Commission, Uttar Pradesh

Meaningful planning process is the most efficacious tool for good governance as it is a sensitive instrument for removing regional disparities and redressing regional imbalances. But, in order to be effective and accurate, the planning process has to be supported by up-to-date and real time data to attain sustainable, equitable and spatially well dispersed development. Without fulfilling this imperative, the decentralized planning would lose its delivering edge. With a view to achieve this objective, 'SPIDER' and 'e-Manchitra' Geo-portals have been successfully integrated and pressed into operation by the U.P. State Unit of the NIC, with an impressive user-friendly quality.

I congratulate the NIC, UP team for displaying outstanding quality of work in developing, implementing this extremely useful project so successfully, which is so very relevant to planners, administrators, public representatives and students of planning process.

My best wishes to the NIC, UP team for ongoing endeavors and future initiatives.

Charting and Reporting Application (http://emanchitra.up.nic.in/emanchitra)) Geo portals have been developed and integrated over the period, rendering the decentralized district and local level planning decisions easier and transparent. The SP databases of last 18 years i.e. 1995-2012 have been generated using various SPIDER modules for Data entry, Report generation, Map based query system etc. In the year 2003, a Bilingual State Planning Atlas (SPA) using GIS tools, was prepared by NIC, Uttar Pradesh for the first time and since then SPAs are annually published using GIS tools in the form of a book and the same is also available on the Internet.

Realizing the potential of the geospatial technology, Planning Department, GoUP and NIC, Uttar Pradesh jointly conceptualized a GIS project during the year 2008-09 for creating GIS infrastructures and generating a large number of online thematic maps and charts for understanding the gaps in the decentralized planning and measuring sustainable developments at the village, block & district, panchayat levels. GIS cells were set-up in all the districts and State Planning Department in 2009-10 and are networked for exchanging geospatial information. e-MANCHITRA Geo portal has been developed using Arc GIS Web ADF for Microsoft .NET for generating annually more than 10,000 online thematic maps and charts on equal as well as on unequal intervals for different levels starting from state to gram panchayat. Dynamic thematic maps are automatically generated through SPIDER portal indicators which reach via link server to Geo-database of Arc GIS server where GPs, blocks, districts, divisional, regional and state boundaries are already available. The integration of SPIDER & e-MANCHITRA Geo portals has made information visualization easier, transparent and useful.

Sectors and Agriculture related tables in Sankhyikiya Patrika

CHALLENGES

• Data collected through census and surveys is inconsistent and inaccurate and cannot be shared among departments due to variations in parameters, tables, formats, years, levels etc.

• Redundancy of work as 50% of data has to be entered annually

• Excessive funding required for manual preparation of SPs and SPAs through outsourced private agencies

• Rectification of inconsistent, duplicate, erroneous spatial and non-spatial data received from different sources and their integration.

BENEFITS OF DEPLOYMENT

• Integrated SPIDER & e-MANCHITRA Geo Portals has made it possible to reflect the changes in SPIDER, simultaneously by e-MANCHITRA through thematic maps.

• Reduced inconsistency, inaccuracy, variations in formats and improved interoperability, reliability, and visualization of data

• Three way data visualization in tables, maps and charts

• Easy interface to study socio-economic disparities and strengthen decentralized planning and decision making

• Empowered citizen and people participation in planning and decision making process

e-MANCHITRA Geo Portal Home Page

SAMAY SUDHINI SEVA
Online Monitoring of Time Bound Services

UT Administration of Daman & Diu and Dadra & Nagar Haveli in collaboration with National Informatics Centre have implemented an online web based Monitoring System for time bound services known as Samay Sudhini Seva.

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Edited by Anshu Rohatgi

The UT Administrations of Daman & Diu, and Dadar & Nagar Haveli provide various services to the citizens in time bound manner. The administration has prepared a Citizen Charter defining the time limit for the selected 60+ services from various departments such as Electricity, VAT, Transport, Excise, Revenue etc. All the services are required to be delivered as per the Citizen Charter. In order to track and monitor the progress of the services, and remove inherent deficiencies and bottlenecks, an ICT based approach has been used by the administrative officers in form of 'Samay Sudhini Sewa' (SSS).

The major aim of the initiative was to equip the administrative officers and higher authorities with web based tools to track the applications received for these time bound services and monitor the timely disposal of the applications.

ESLA-FRAMEWORK
After a detailed study of the system and the functionality required, it was decided to adopt the framework of eSLA, (electronic Service Level Agreement) developed by NIC State Unit, NCT Delhi. eSLA is a comprehensive system designed and built around services. The back-end processes of the services are already computerised and it provides various MIS reports at different levels to monitor the delivery/disposal of the applications. However, the scenario is a little different in the UTs as the computerisation of backend processes is not complete for all the selected services. It is at different level, making it quite difficult and challenging task to enter the application details into the eSLA system. As a result the eSLA framework had to be customised for the two UTs and a separate module was developed to capture the application details into the system.

The customised version of the eSLA framework has been implemented for the two UTs.

SINGLE WINDOW IMPLEMENTATION
The administration established 'Single Window Counter System' at all the departments where the applications of the identified services are received through Single Window User Interface. The operator of Single Window receives the application from applicants and enters into the system. The system generates receipt with a Unique Application Number. One copy of the receipt is given to the applicant, while another copy is attached with the
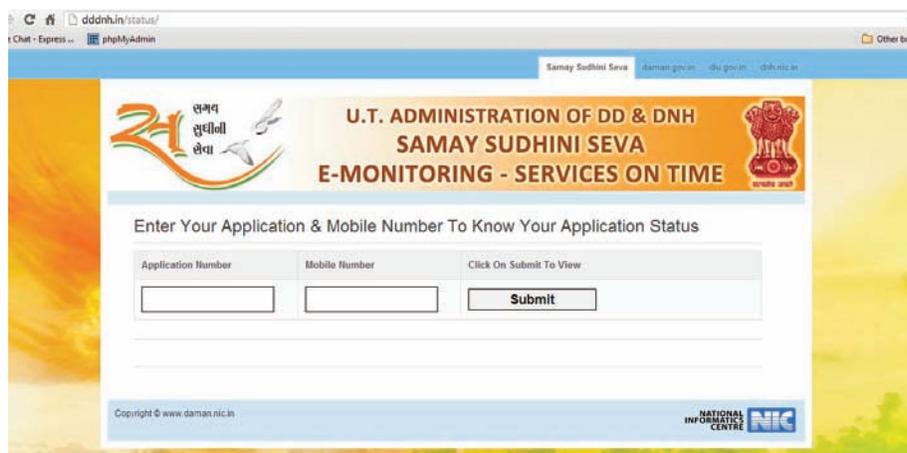
application. The application is now sent for the processing. The processed application returns back to the Single Window operator with the deliverables, if disposed-off, otherwise with the reason for pendency/rejection. The status is also captured in the system.

SALIENT FEATURES

All the users at various levels have been provided user credentials with different user rights. The user intended to capture the application details enters application into the system and generates receipt with Unique Number. The applicant can track the status of the application online using the combination of the Unique Application Number and the mobile number, provided earlier.

The system generates different MIS reports for various levels of monitoring. The MIS reports highlight the number of applications received and disposed within SLA and those disposed after the SLA period or delayed as per the SLA period. Based on the MIS reports, the senior authorities can then take appropriate actions against the erring officer/official.

All the users of the system have been provided secured access through VPN.

HOW IT WORKS

The application works in three different layers:

1. Data Capture/Application Management:

The module has been developed in PHP/MySQL technology by NIC-Daman centre. It is hosted on Linux server and is accessible through Internet. The SSS operator captures the application details using this module. This module covers extensive application management like

disposal, rejection, suspension and revocation of the application using various user rights at appropriate level. If any application needs to be kept in suspended state, it is not counted under the SLA days. This module also covers the online status display to the applicant. Applicant can access the website http://daman.nic.in to see the status of their application.

2. Data Bridging:

At the end of each day, this module accumulates the applications entered into the Data Capture module to the eSLA/SSS monitoring module. The eSLA uses MS-SQL as backend database server. This module uploads the application details captured from the Data management module to eSLA module.

3. Monitoring:

This module processes the application details and generates various MIS reports as per the requirement.

ADVANTAGES

The pendency of the application has

reduced considerably due to regular monitoring by the administrative authorities.

The applicant can see the status of their application online using the Unique Application Number.

The whole application development uses hybrid environment like PHP/MySQL/MS-SQL/.NET.

IMPACT

Samay Sudhini Sewa was inaugurated by the Hon'ble Administrator of Daman Diu and Dadra Nagar Haveli in the presence of Hon'ble Member of Parliament, District Panchayat Presidents, Municipal Presidents and other public representatives on 7th May, 2013. The effort was highly appreciated by the Administrator and other dignitaries.

At present, the system has been implemented in 10 departments covering 60 services across both the UTs and many other services are in pipeline. The application is also being replicated in Diu district.

The success of the project can be gauged with the improvement in disposal rate of the applications and reduction in pendency levels. NIC, Daman and Diu is in process of integration of SMS gateway with the application and very soon, the applicants will be kept well informed of every activity regarding their applications.

NEET-UG –
National Eligibility cum Entrance Test for Under Graduates

The Medical Council of India and the Dental Council of India have notified that the Central Board of Secondary Education (CBSE) shall be the organization to conduct the National Eligibility cum Entrance Test for admission to MBBS and BDS courses. CBSE, in technical collaboration with NIC, has conducted the National Eligibility cum Entrance Test for admissions to MBBS and BDS courses, for the first time in academic session 2013-14 on sunday, the 5th May 2013.

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Pursuant to the notification published in the Gazette of India Extraordinary dated 21st December, 2010, the Medical Council of India, with the approval of the Central Government amended the regulations on Graduate Medical Education 1997 and made provisions for a Single Eligibility cum Entrance Examination, namely, National Eligibility cum Entrance Test (NEET) for admission to MBBS courses in each academic year.

The Dental Council of India also amended the BDS Course Regulations 2007 and notified in the Gazette of India Extraordinary dated 31st May, 2012 that admission to BDS courses in each academic year shall be through National Eligibility Cum Entrance Test (NEET).

Accordingly, the CBSE in collaboration with NIC has conducted the National Eligibility cum Entrance Test for admission to MBBS and BDS courses.

In order to conduct NEET, a web based application (http://cbseneet.nic.in) was developed by NIC, which facilitates the following:

- Online applying by candidates
- Printing bank e-Challan for depositing fee in banks across India
- Paying the examination fee through Electronic Payment Gateway using credit/debit cards
- Post Office e-Challan for depositing fee in Post Offices across India
- Checking application status
- Online correction in filled particulars
- Downloading Admit Card

Apart from this, information on various notices, facilitation centres, information at a glance, RTI, useful links and contact information have been provided on the website. The result of the NEET will be published on the http://results.nic.in

Home Page of NEET-UG

Module	Functionality
Apply Online	Interface for aspirants of MBBS/BDS who can submit an on-line application form giving personal details including the option for mode of examination in 6 regional languages in addition to Hindi, English and Urdu and option for All India Quota Merit, 3 states of domicile, AFMC and Private Medical Colleges. Also, they can opt 3 examination centers as per their order.
Print Bank e-Challan	Interface for downloading and printing e-Challan for depositing fee in banks and post offices across India
Pay the Examination Fee	Interface for submitting fee deposition details or submitting fee through Electronic Payment Gateway from debit/credit cards
Re-print Confirmation Page	Interface for re-printing the confirmation page in case the confirmation page generated by aspirants has been misplaced/lost
Forgot Registration Number	Interface for displaying authentication based registration no. if aspirant has forgot the same
Print Address Slip	Interface for generating candidates' address slips which are to be utilized for posting the confirmation page to CBSE; duly signed, with thumb impressions along with their photographs
Application Status	Interface for checking their physically received application in CBSE. This data is updated periodically as lots of applications are received by CBSE.
Online Correction in Pariculars	Interface for one time correction in personal information submitted during on-line application submission
Reprint Online Correction Slip	Interface for generating correction slip, if correction is made in particulars.
Download Admit Card	Interface for downloading Admit Cards before appearing in the NEET-UG examination
Important Proforma with Post Card size Photograph to be handed over to the invigilator	Interface for downloading format for submitting an additional postcard size photograph of the candidate in the examination hall

Deployment Architecture for NEET-UG
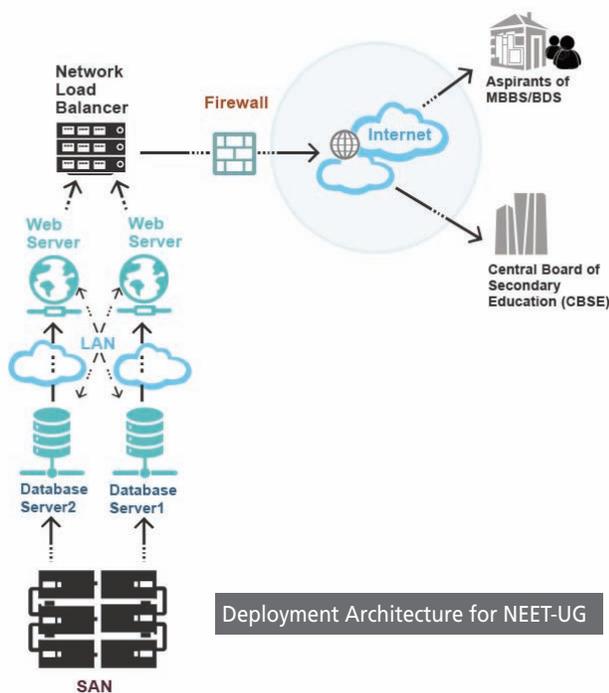
website with a link on the NEET website. The website provides information about latest news, important dates, download and help.

OVERVIEW OF NEET-UG
NEET-UG is a web application for the candidates, who wish to appear for the entrance examination enabling them to get admission in MBBS/BDS, with modules as per details given in the table.

CURRENT STATUS
NEET-UG examination has been succesfully conducted for the first time in the country by CBSE in technical collaboration with NIC. The process was started in December, 2012 and around 8 lakh online applications have been submitted and around 7.5 lakh admit cards have been downloaded. The NEET-UG exam was conducted on 05/05/2013 for the whole country except for Karnataka, due to assembly elections. The examination in Karnataka has been conducted on 18/05/2013. Besides, supplementary NEET-UG exam in Urdu has been conducted on 26/05/2013.

TECHNOLOGY ADOPTED
NEET-UG has been developed with Windows Server 2008 as Operating System, MS SQL Server 2008 Enterprise as Database, Internet Information Server as Web Server and .NET framework 4.0 as a development tool. Deployment architecture of the same has been adopted with Disaster Recovery Architecture.

IMPACT
The NEET-UG was conducted for the first time in our country this year. It's success and popularity has boosted up the confidence level of both CBSE and NIC, and has become a motivational factor for developing more technology solutions for conducting various entrance examinations efficiently.

LAKSHADWEEP ISLANDS
Digitally Bridging the Nautical Seclusion

The Union Territory of Lakshadweep (UTL) is geographically dispersed in the Arabian Sea with its capital at Kavaratti. It has achieved enormous success in deliverance of ICT services to its citizens despite its geographical isolation and bandwidth insufficiency, using the reliable and efficient infrastructure, training methods and positive approach of the UT administration.

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Edited by R. Gayatri

NIC Lakshadweep UT centre, since its inception in 1988 has been extending ICT services to the territory with utmost efficiency and commitment. Due to geographical isolation of the territory from the mainland and within the detached islets, ICT governance tools, infrastructure and the fleet of online applications has become the lifeline of the territory. UTL is a model of 'effective digital bridging of geographical isolations through Web/SWAN enabled MIS'.

Some of the very successful services are listed below.

1. LAKSHADWEEP SWAN

Connecting the inhabited islands, which are spread across the Arabian Sea under a single network, was one of the toughest tasks set ahead for NIC Lakshadweep. The designing of State Wide Area Network was done with the assistance of technology experts from Network Division of NIC HQ. With the support of Administration of UTL, the vertical network connecting all the 10 inhabited islands including the least populated Bitra, was built within a span of 1 year. The Administrative Headquarters, Kavaratti is designated as State Headquarters with 8 Mbps backbone connectivity and islands (DHQ) with 2 MBPS. There is no Block Headquarter (BHQ) level in LSWAN. LSWAN was inaugurated on 24th December 2009 by then Honb'le President of India Smt. Pratiba Devi Singh Patil.

Today, LSWAN has become the only source of connectivity for various Government Departments as well as Non-Governmental organizations of Lakshadweep. Three years after inauguration, NIC Lakshadweep was able

The Excerpts of her Excellency Smt. PRATIBA DEVI SINGH PATIL'S Speech

"I am glad that the State Wide Area Network known as SWAN has been implemented in the islands to provide connectivity between the various Government Departments. It will be a platform for e-Governance and other IT enabled services. Even more significant would be SWAN's ability of ensuring a communication channel for disaster management, in case such needs arise. I am sure that as this Project begins operation today, it shall help in the improvement of education, health awareness, providing information about the weather, entertainment and news delivery services. I am, therefore, happy to be inaugurating the SWAN Project. I hope that as the bandwidth is increased, internet facilities will be extended to the people for their business and personal use".

to connect more than 450 Offices including schools, anganvadis, health centres, hospitals, Common Service Centres, Police Stations, Harbour Works, Port Offices etc., which are spread across

10 islands. VC and IP phone facility has been established in SDO offices of all the islands over the LSWAN. Internet is also provided in LSWAN by NIC.

With more than 85% of average bandwidth utilization, LSWAN proved to be the most successful SWAN implemented across the nation.

2. WEBSTAR - SHIP TICKET ADVANCE RESERVATION SYSTEM

Shipping is the lifeline of the people of Lakshadweep and all the thirteen Port Offices of the administration have been interconnected under PORTNET, extending the NICNET and also through LSWAN. This network has enabled the Web-based Ship Ticket Passenger Reservation and Cargo Booking Systems.

With this system, ship tickets in "anywhere to anywhere" basis can be reserved from any of the counters set up in islands and the mainland. The ship schedule, seats availability, ticket status, fare, passenger list etc. are available to the public through Internet. SMS alerts and information Kiosks. The website www.lakport.nic.in received 4,78,363 hits during the year 2012.

3. BILLING & CONSUMER MANAGEMENT SYSTEM (e-BCMS)

e-BCMS is a web-enabled system for total management of Consumer Service Connections in Lakshadweep Electricity Department (LED). This is a G2C, G2G application seamlessly operational since July 2007 for the Department of Electricity. It is a work-flow based MIS, systematizing the total functionalities and business processes with regards to a Consumer Service Connection from its connection request point to

Passengers
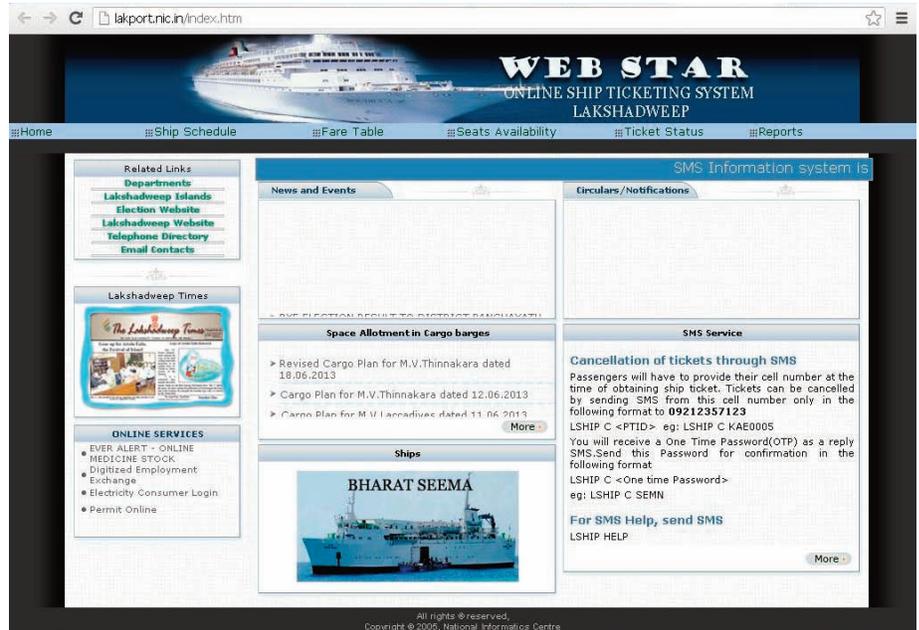
disconnection/deactivation. Major processes include Consumer Registration, Service Connection Establishment, Service Connection Maintenance & Management, Meter Management, Monthly and periodical Consumer Billing, Service Connection Fault Management and Consumer Disconnection/Deactivation.

e-BCMS has the following web-enabled interactions:-

• Consumer Registration & Management System (G2G)

• Energy Billing (Bill Generations & Cash collection) (G2G & G2C)

• Complaint/Fault Management System (G2G & G2C)

• Consumer Facilitations Window Online (Consumer Login- G2C)

All the consumers in Lakshadweep are covered under the application. All the 9 major sub-divisions and 4 minor sub-

SMS/Alerts to Passengers

divisions are connected to the system since 2007.

4. ONLINE SCHOLARSHIP SYSTEM

The Administration of UT Lakshadweep is providing scholarships to all the students going for higher studies from the islands to various parts of the country, irrespective of income, merit etc. Students are reimbursed all educational expenses based on the institution's bills. A Unique Student ID is created at the time of new registration for the students.

The key modules of the system are student registration, claim processing, bill generation and disbursement. All the registered students are provided access to the system with login and password to know the status of their claims and other information.

5. PLANMIS VER 2.0

Plan Monitoring Information System version 2.0 is a web based application for the Planning and Statistics Department. Main objective of the application is to generate sector-wise, Monthly Expenditure Report of schemes. The user departments of respective schemes and sectors enter the financial and physical progress for a month. Scheme-wise and sector-wise monthly MIS reports can be generated by Planning Department, whereas scheme-wise reports of a particular department can be generated by the respective department.

6. POWER GENERATION & DISTRIBUTION MANAGEMENT SYSTEM

Power Generation & Distribution Management System is a web enabled application to monitor the operations of Diesel Powerhouses & Solar Power Plants in Lakshadweep for Electricity Department. The main objective of the workflow based application is to monitor the operations of powerhouses & SPV power plants, in various islands, besides checking the efficiency of diesel generators, total hours of operation of diesel generators, peak demands & hours in various islands, generator maintenance, track down defective generators alert etc. Alerts are sent to senior officers when generators are down.

7. VSAT BASED VIDEO CONFERENCING SERVICES

The VSAT based NICNET was established from the date of inception of NIC in Lakshadweep (1988) by installing and operationalization of C-200 VSAT at Kavaratti. Then gradually, NICNET has been extended to NIC at Lakshadweep Administration Office in Willington Island, Kochi and Minicoy during 1990-91. Considering the isolation and very poor communication facility, NICNET service with C-200 was extended to the remaining islands- Andrott, Kadmat, Kalpeni and Chetlat with technical manpower of NIC, during 1993-94. These VSAT based NICNET service played a crucial role during Parliamentary Elections and during Monsoon season (May 15 to September 15). Today, around 43 VSATs are under operation in offices of the Electricity, Port, and Revenue Departments.

VC studios have been setup in Kavaratti,
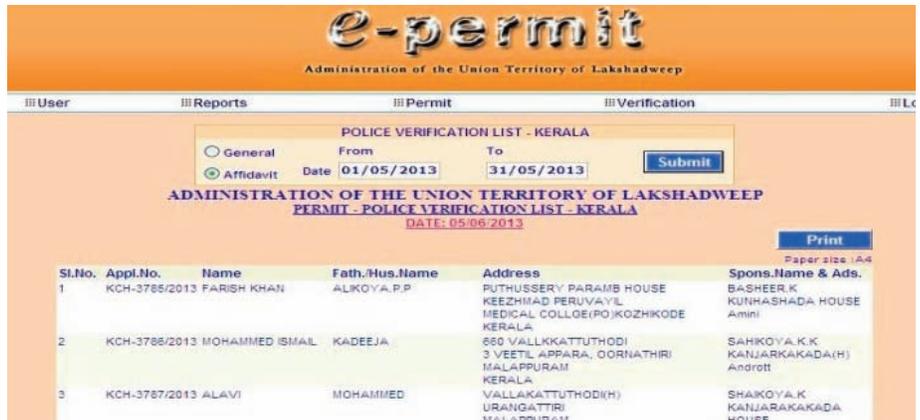
Minicoy and Kochi. All the inhabited islands are provided with video conferencing devices by the Administration of UTL. During 2012-13 more than 300 Lakshadweep-centric video conferencing sessions were conducted over SWAN and NICNET.

8. INTEGRATED SYSTEM FOR PROCUREMENT, INVENTORY, DESPATCH & DISTRIBUTION OF MATERIALS

All materials for Lakshadweep are procured from mainland, stored in the respective stores of departments and then dispatched to various stores on the islands by available conveyance.

The application system keeps track not only of the inventory of materials but the overall management of the activities from purchase to disbursement in a workflow model. The major functionalities of the system are: supply order generation, distribution list, item receipt, stock transfer, packing, despatch, items tracking, indent, damage management, work estimation, billing , MIS reports generation etc.

The system was successfully implemented

at Department of Electricity and is being implemented at Department of Fisheries and Port.

9. e-PERMIT SYSTEM

Lakshadweep being a strategic area under the Union of India, the entry to the islands is restricted and the UTL Government is issuing entry permits to those who wish to visit Lakshadweep based on the act "The Laccadive Minicoy & Amindivi Islands (Restrictions on Entry and Residence) Rules, 1967".

e-Permit System is operational since 2008. The functionalities under this system are application registrations, Police verification, permit generation, island reporting, island exit, renewal etc. Logins are provided to Police Stations in all islands of Lakshadweep to capture the island reporting and exiting details of permit holders. The ADM/SDO/ASDOs also access the system to make endorsements such as extension/renewal of permits, permitting additional islands etc. The key features of the system are: online status of permit, tracking of permit holders, pending list, list of over stayers, permit register & profession wise break up and generation of statistical reports etc.

10. COMPUTERIZATION OF PUBLIC DISTRIBUTION SYSTEM

Computerization of Public Distribution System was initiated in March 2012. Lakshadweep has been chosen as one of the pilot state for PDS computerization.

Digitization of Existing RCs: Data collection and digitization of existing Ration Cards were entrusted with VLEs (Village Level Entrepreneurs) by UT Administration. ERCMS (Existing Ration
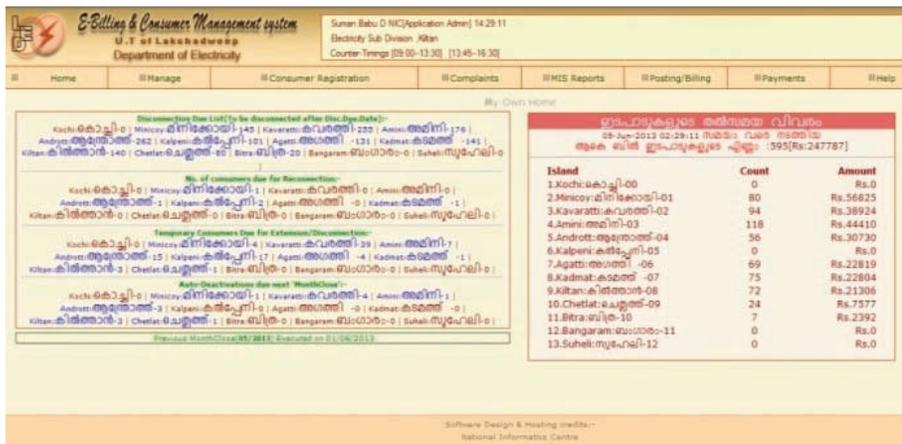
Card Management System) application has been used for capturing RC data. As the existing Ration Card holds very minimal details, data collection exercise was carried out to capture maximum information possible from households. Collection and updating of bank account details of beneficiaries were also taken up for facilitating Direct Cash Transfer. Bank details of more than 85 per cent of beneficiaries are already seeded into database and the process of seeding UID will be started soon.

11. SEAT ALLOTMENT SOFTWARE

The application is developed for Department of Education for allotment of seats for higher education in mainland institutions. As there are no institutions for pursuing higher studies after school education, MHRD has reserved seats in few mainland colleges for various courses such as post-metric diploma and ITI courses, graduation in different streams including professional courses and post-graduation. UT Administration has brought out its own seat allotment rules keeping compliance with merit criteria of respective universities/institutions, to ensure a fair allotment process for native students and also wards of employees from mainland serving Lakshadweep Administration.

12. LAND RECORDS

A web based application (Land Records Information System) has been developed wherein the Record of Right or RoR can be generated. Other reports like Land Register Extract, Fair Area List, Island Wise Land Holdings, Owner wise Holdings, Land Type wise Holdings, List of all landowners, Missing Survey Numbers etc. can also be generated. Integration with the online software for Registration & CollabLand software is also in progress. The software is implemented in all the 10 Revenue Subdivisions of Lakshadweep.

13. NADRS

State Level launching of NADRS was done on 06th Feb 2013 by Shri V.C. Pandey, IAS, MD (LDCL) and Secretary (Animal Husbandry) Lakshadweep. All the Animal Husbandry Units including State/UT Directorate and Liaising Office at Kochi and Animal Husbandry Hospitals in islands (Bitra to Minicoy)

Launch of NADRS

could be virtually connected by successfully establishing the NADRS Block level network. NADRS helped in online reporting of the diseases along with keeping the record of disease cases of various veterinary centres of each island and monitoring of these disease cases from the State Project Monitoring Unit (SPMU) at Kavaratti.

Training was conducted through VC for the remote locations. The lecture on various goat diseases by the scientists of Central Institute for Research on Goats, Lucknow was extended through VC on NICNET with active coordination by Shri M. Moni, former DG NIC.

14. e-MPEDA (MARINE PRODUCT EXPORT DEVELOPMENT AGENCY)

MPEDA is an autonomous body set up for the promotion of exports of seafood from the country. The Head Quarters of MPEDA is located at Kochi in the state of Kerala.

The project involves the re-engineering of various activities and development and implementation of online applications. The following areas are identified and NIC Lakshadweep Unit, Kochi is executing the project:

• Registration Management System

• Subsidy Management System

• NRCP Monitoring System (e-NRCP)

• Personal, Payroll and GPF System

• Pension System

• Financial Management System

• Asset Management System

• Plant Survey

• Online Farm Survey

• RCMC System

• Registration System for Aqua farms, Hatcheries & Feed mills

• Online PHT System

15. LAKSHADWEEP GRIEVANCE MANAGEMENT SYSTEM(LGMS)

Lakshadweep Grievance Management System is a web based online public grievance redressal mechanism which aims to bring in transparency and accountability in offering government services. With the introduction of LGMS, the administration is able to track, search and redress complaints in a more effective way. The key features of the project are:

■ Complaint Registration through helpline

■ Integration of Common Service Centres for citizen interface

■ Designated Public Grievance Officers in all departments

■ Department wise, category wise reports, pendency reports and other MIS

16. ONLINE TAPAL MANAGEMENT SYSTEM- DEPTARTMENT OF ELECTRICITY

As a part of implementing effective e-governance applications for speedy transactions in offering government services, NIC Lakshadweep Islands designed and developed Online Tapal Management System for Department of Electricity. The system is designed to digitally archive the tapals received in the department, send it for officer's perusal, mark the comments online, send the tapals to the employee concerned, acknowledge the received tapals and to move the processed tapals to respective file for processing. The system has admin controlled role menus, workflow based application design and various pendency and MIS reports. The system is seamlessly working in Department of Electricity for the last 3 years.

17. JEEVANREKHA

Jeevanrekha is an online application that deals with the registration of birth, still birth and death events. The application is completely developed using open source technologies and has a workflow model. The application is seamlessly running and is used by Department of Health Dervices from 2011 onwards. The application offers local language support and certificates are issued in bilingual format.

In addition to the above projects, SchoolNet, EverAlerts, BUDGETMIS,Payroll and Lakshadweep official website are developed and maintained by NIC Lakshadweep.

In addition to the above projects NIC, Lakshadweep is implementing many Central projects like MGNREGA, IAY –

MIS, VAHAN ,SARATHI, e-Lekha, COMPACT,CDDO2PAO, ReAlCraft, e-Courts etc.

ACCOLADES

● CSI Nihilent Award –Department of Electricity bagged the CSI-Nihilent e-Governance award 2006-07 for the Best e-Governed Department

● Microsoft Award - The WebSTAR project has received the "Award for Innovative Project" in the Microsoft e-Governance Awards 2006

● Manthan Award - Manthan Award in 2007

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RAJASTHAN
Celebrating Twenty Five Glorious Years

NIC Rajasthan is celebrating silver jubilee of its establishment this year. The celebrations have started and the long journey with ups and downs has been quite fruitful. Today with the efforts of team NIC, the state of Rajasthan is surging ahead as a leader in e-Governance and ICT development, covering a wide gamut of applications as an ever important asset and resource of Government administration. Today, it has a staff of 77 in Jaipur and a total staff of 134 in Rajasthan.

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Edited By Vivek Verma

THE JOURNEY OF 25 YEARS

NIC Rajasthan's journey towards excellence has been very exciting and full of challenges. Beginning from a very small room of 180 sq ft in the Chief Minister's office at Secretariat Jaipur, with a staff of four in 1988, NIC Rajasthan has grown many folds and has reached out to the remote parts of the state. NICNET, starting from 256/512 Kbps VSAT network is now providing Gbps/Mbps connectivity to over 300 locations like the District Collectorates, Post Offices, Ministry offices, Government Buildings, universities, colleges, tehsils and various parts of the state. Apart from this a large number of offices are provided with connectivity to NICNET with VPN over broadband.

There are many successful projects that have been implemented during the past 25 years. Using NICNET for the election results telecast with Doordarshan and the support provided by the NIC district centres in the computerization of election activities was the first major milestone. Now, the election process and systems developed by NIC are almost integrated. Rajasthan achieved new heights in innovative use of software which won several accolades nationally and internationally.

First time, the Primary Census Abstract, Population Census 1991 was released in a short period of one and half year in 1991. Computerization of treasuries within a short span of time was also a reckoning moment. Monitoring of the revenue campaigns for the CM's office in the 90's using software demonstrated the capability of NICNET when the weekly field level figure were available on the fourth day from the camps at villages, since then it has become a regular monitoring mechanism.

It was computerization of Land Records, which made NIC realize the gigantic efforts required to build IT enabled systems in government. It appeared to be

Hon'ble MoS Shri Narayansamy and Hon'ble CM Rajasthan Shri Ashok Gehlot releasing the NIC Rajasthan Silver Jubilee logo at the NIC stall at the NCEG 2013
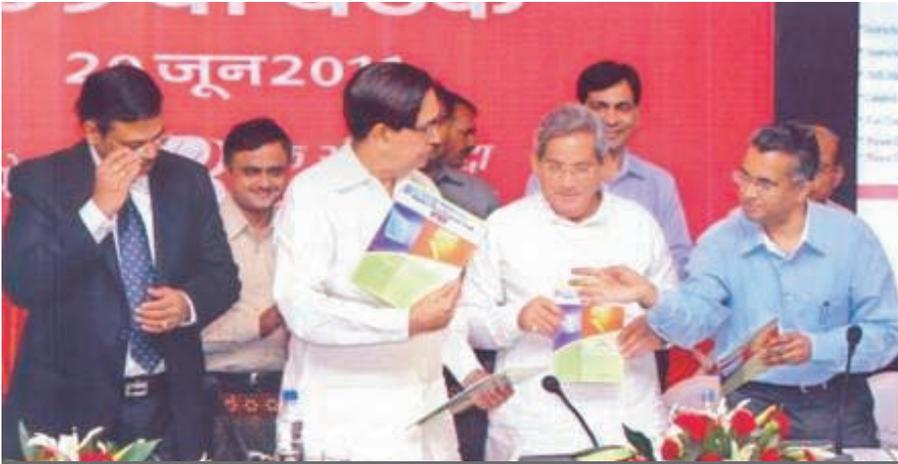
Shri Namo Narayan Meena, Hon'ble Minister of State for Finance, GOI Shri Rajendra Pareekh, Minister for Industry, GOR and Shri C.K. Mathew inaugurating IFMS in Banker's Meet

an impossible situation and whole of "NIC Rajasthan" was converted to "NIC Land Records". But the efforts payed of and the landmark in the history of Revenue Department has been realized. Because of the unabated confidence in NIC put fotrh by the Revenue Minister, Revenue Department and Chairman Board of Revenue that in 2003 Rajasthan became the first state to place the entire state's LR data on the Internet and established Apna Khata Kendra (kiosks). Similarly, Rajasthan was the first state to declare Board of Secondary Education results on NICNET and provided it to the schools in remote areas on the same day. It was the first direct interaction with youth of the state which introduced sudden peaks of load on server resources.

Video Conference facilities in the state were established using high speed Ku-band VSATs way back in 1995, which was inaugurated by then Hon'ble Deputy Chairman, Planning Commission Shri Pranab Mukharjee. NIC introduced email and Internet as an alternate mode of communication among the exporters in the state using Ku-Band network. First Video Conference was conducted in SMART Governance conference at Birla Auditorium, Jaipur between the Chief Secretary and Director General NIC, which left all audiences mesmerized. Processing and release of BPL census 2002 data on the Internet and building application for its online updation, was first of its kind in India. The most recent milestone was proof of concept of rural

connectivity in ten Gram Panchayats in Ajmer district which made its mark nationally as well as internationally. SUGAM for grievances redressal and service delivery for nearly 30 services was rolled out in six months time. Integrated Finance Management System (IFMS), EGRAS, Old age Pension, NSAP, SSA, Pre Teacher Entrance Test Counseling or PTET, AIEEE Counseling, Medical & Health, Education, Mid Day Meal Monitoring System (MDM), Online Answering System for Rajasthan Assembly or OASYS, Pregnancy, Child Tracking & Health Services Management System or PCTS, etc. have all played their important role in shaping the e-Governance regime in the state of Rajasthan.

Rajasthan High Court of Judicature, though started late in 1995 on the path of computerization, became one of the leading high courts to deploy IT solutions in each section. Today the litigants, lawyers, students, citizens all benefit from these systems. Some novel experiments like setting up of query counters, cause list, Judgments, interim orders on Internet, integration with SMS gateway, Display boards have proved to be the path-breakers.

NIC State Unit Rajasthan has witnessed positive change and a proactive approach under the guidance of the Hon'ble Chief Minister Shri Ashok Gahlot and the Chief Secretary Shri C.K. Mathew for process re-engineering and introduction of a strong Feedback Monitoring System by frequent meetings with the field functionaries through video conferencing. Rajasthan is among the foremost states in utilizing the VC services to the full extent. The systems have been established for day to day monitoring of special administrative campaigns to reach out to the citizens, aptly supported by software systems to allow daily flow of information such that common figures are available across the government from the highest office to the lowest field units. Such systems have paved the way for seamless integration between policy making administration and IT support systems.

EVENTS MARKING THE CELEBRATION OF SILVER JUBILEE YEAR

Year 2013-2014 is very important for NIC Rajasthan State Unit and many activities have been planned to mark the occasion. It started with the release of logo by the Hon'ble Chief Minister and the Union

Hon'ble CM Rajasthan and Chief Secretary Rajasthan Shri C.K. Mathew during the inauguration of online Jamabandi

Hon'ble Governor, Hon'ble Speaker and Hon'ble Chief Minister releasing Online Application for the Un-edited Proceedings of Rajasthan Legislative Assembly

former Chief Minister Smt. Vasundhara Raje gave an opportunity to give a presentation of e-GRAM project, a unique data base of all the basic amenities in each village, at the Ministers' conference at CMO at a very short notice and herself explained some points.

NIC Rajasthan established immigration system at Munabao Railway station in Barmer, near Pakistan border, which is a remote place in the desert. It was a chilling experience working there late in the nights with no human population around.

The VC session of NIC Rajasthan with the US President Mr Barack Obama and Shri Sam Pitroda from Kanpura (Ajmer) in the

Minister of the State at Jaipur. Other events that will continue are: sporting events, slogan competition, get-togethers, felicitation programmes, lectures, seminars and other activities. There are plans to release a special document on NIC Rajasthan achievements on the occasion.

SOME PROUD MOMENTS

When Hon'ble Chief Minister, Shri Ashok Gehlot walked into NIC office on a holiday in 1999 and discussed various activities undertaken by NIC, the guidance and appreciation from the highest quarters of the State Government has been a great morale booster for the team NIC.

A remarkable moment came when the

Hon'ble Chief Minister, Rajasthan Shri Ashok Gehlot interacting with NIC Official in his earlier tenure
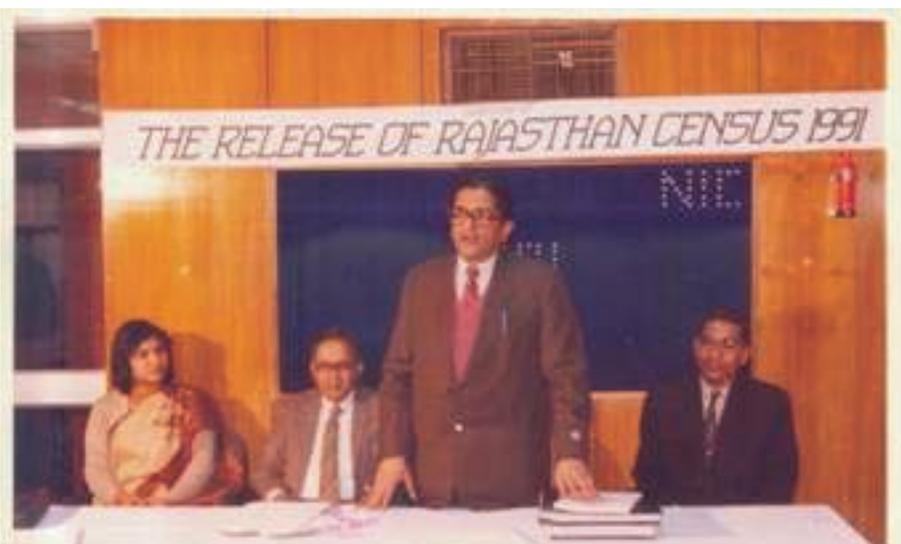
Shri T.V. Ramnan, Chief Secretary releasing PCA Data in 1992

presence of the then Hon'ble Minister of Communications and Information Technology, Shri Sachin Pilot was a memorable event for NIC Rajasthan.

NIC Rajasthan won two National e-Governance Awards at Bhubhneshwar at the same time for Pregnancy, Child Tracking & Health Services Management System or PCTS and OASYS projects. The awards and accolades given to NIC Rajasthan especially Manthan Award South Asia for e-Gram, are always special and cherished.

FUTURE PLANS

Some of the key projects which would be rolled out shortly are: Electronic Record Rooms for the Revenue Department, Digitization of the maps, Online Real

Time Revenue Records, Mobile Applications, Procurement Portal, Electronic Benefit Transfer, Electronic Government Receipts, Data Mining, Open Data Portals, Right to Education Portal etc. The key focus will be on integrating the accumulated data with decision making and policy planning. NIC Rajasthan has deployed GIS tools for education data to assist in identifying new school locations. Most of the applications have been built in local language and will be ready with bilingual data sets.

NIC Rajasthan is highly indebted to the support and confidence extended by the Rajasthan Government. The focal point of the next version of governance is citizens, quality and availability of service- anytime anywhere, sharing of data across stakeholders and across various platforms, data mining and analytics. NIC Rajasthan is constantly moving ahead to embrace new technologies like mobile technology, cloud computing, virtualization and nationally taking lead in several areas like Medical-Health, Finance, Public distribution system, Courts, Legislative Assembly , Education etc to name a few. We know that the road ahead is full of challenges, lots of efforts are required but the successes and failures, struggle and challenges have given us the confidence to surge ahead and explore new frontiers in e-Governance in tandem with the state policies.

With Hon'ble Shri Sachin Pilot, Former Union Minister for IT & Communication

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OPEN SOURCE HARDWARE –
An Emerging World of Opportunities

The IT world is witnessing phenomena of a kind due to massive availability of open source software, which has become an important part of software development process and has given people a wide range of choices and benefits. On parallel lines, the same is being conceptualized in hardware field also, not as an idea but as a reality. Free Open Source hardware (OSH) is relatively a new concept emerging in the world and internet is aiding in its vast spread across the trans-national boundaries. Chris Anderson in his book 'Free the future of Radical Price' has predicted that hardware is the next natural extension of the open source movement. He further writes that we are very familiar with the concept of open source software but the new idea of extending that to hardware – from circuit boards all the way up to consumer gadgets, like Google's Android phone, is just emerging.

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Many people in this world often have good ideas and some execute them to reality but others are not lucky enough to give their ideas a definitive shape. Though there is no data to prove this ratio of unfinished to finished ideas, but it is fairly high. Due to increasing trend in the publishing of information on Internet, the information is made available for R&D and used by others (individuals/companies) to convert ideas into reality. The benefits are tremendous for all countries, particularly for developing countries that lack in R&D activities, expertise, education and finances but with abundant availability of cheap labor, can reap the benefits to bridge the technological, educational and cultural gaps.

Open Source hardware is based on publishing of all necessary data about hardware. It also incorporates design specifications, Hardware Definition Language (HDL) files, simulations, Test Benches, Synthesis Results, utilization instructions and interfaces to other systems etc. and emerging views on openess of necessary design documentation and its disclosure to the public on the pattern of terms of GPL like licenses.
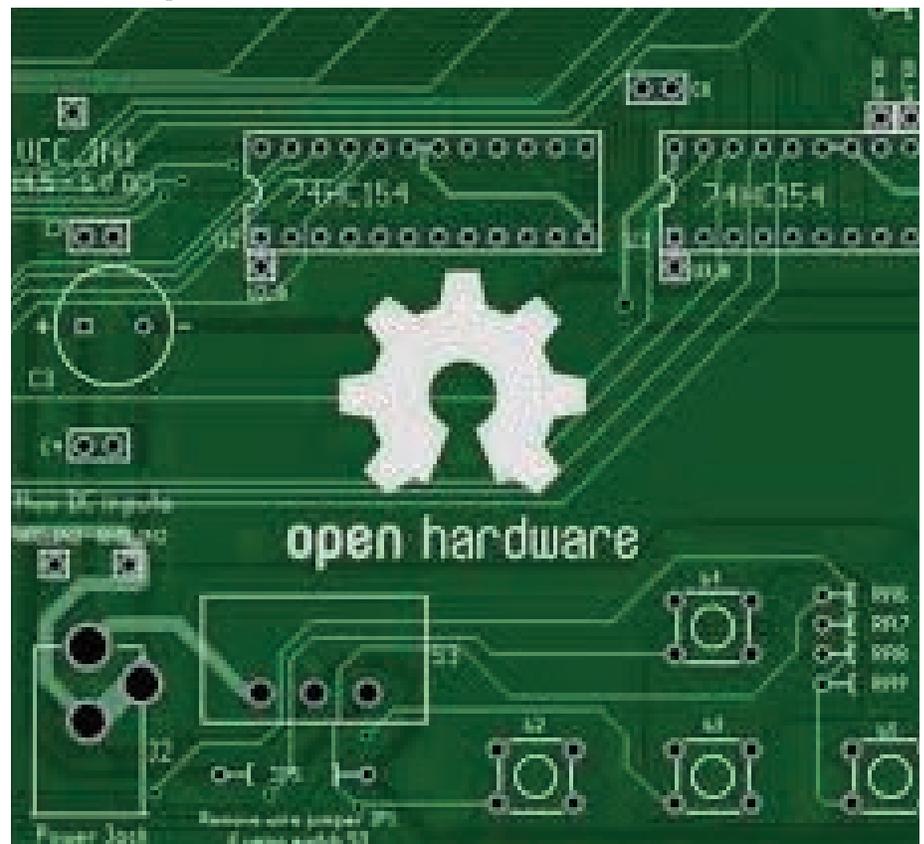
There is a budding community of companies, individuals, and groups that are actively involved in designing and creating open-source hardware. Some well-known examples include the Arduino Boards (a microcontroller development platform), Chumby (a Wifi device), MakerBot Replicator (a 3D printer), OpenFlow (easy deploying of innovative routing and switching protocols in a network).

On March 2011, CERN released the Open Hardware License (OHL) or CERN-OHL, which specifies the terms and conditions for using, copying, modifying and distributing open source hardware. The document establishes legal framework that will allow formal recognition and endorsement of open source hardware, while protecting intellectual property rights. The Open Hardware Repository (OHR) is the online venue where engineers can collaborate and share information in accordance with the OHL.

PROBLEMS & CHALLENGES

High costs of EDA (Electronic Design Tools) and its affordability issue demands development of low costing Open Source EDA tools. There is progress in this but still much more needs to be done. Alliance and gEDA are available for as Open EDA tools but need continuous improvements.

Hardware manufacturing cost is relatively expensive & prohibitive. Therefore, there is need for implementation on FPGA-based prototyping boards or simulation of designs using formal verification techniques.

There is need to have good GPL like licenses to protect the open designs and reserve rights for original designers, according to particular terms and rules because many scrupulous manufactures place no attribution and try to remove all the identifying marks from their product.

Multi-nationals and big companies may oppose aspects of open source because that will generate alternatives for commercially protected products. Market competition is mainly based on patents and intellectual property that maintains all rights for the originator firm. However, even these companies might take advantage of open source as a way of bridging the gap for time and costs absorbed in R&D and remain in win-win situation because on one hand there will be less investment in R&D and on the other hand end-result will be cutting-edged reliable products with affordable prices.

Despite the challenges, there is an emerging consensus on the issue of open source hardware. The open source hardware can produce a whole new generation of computers and internet. Computational engines might change from traditional architecture that are based on software instructions, which execute on hardware resources into algorithm that further process hardware functions, which load and unload dynamically onto a programmable logic platform.

The future might give rise to a new internet service called 'Hardware Computing Resource Protocol' (HCRP) which would enable developers to design their algorithms, based on hardware core, and upload them on these machines that run and implement them. The open source design, open source computational resources and global networking has introduced a new era of innovative technologies and platform.

The development in this field has already begun to reap the results in the form of many open source hardware projects ranging from computer systems & components, cameras, radio, telephony, science education, machines & tools, robotics, renewable energy, home automation, medical & biotech, automotive, prototyping, test equipments, and musical instruments. However, a lot more efforts are required in this area on similar lines as has been the case with open source software. It is on the governments of developing countries to take the call and wake up and gear for the emerging opportunities in this field.

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The Importance of Standards and its Use in Healthcare

Traditionally, the health-care environment consisted of a set of loosely-connected, organizationally-independent units. Health-IT standards provide the foundation for institutional data sharing with disparate healthcare systems and integration of this clinical data with diagnostic equipment such as CT scan, USG, Auto analyzer, etc.

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The health-care environment has traditionally consisted of a set of loosely-connected, organizationally-independent units. Patients receive care across primary (first level of contact such as Primary Health Centres, PHCs), secondary (first referral level such as district hospitals), and tertiary (medical colleges and advanced medical research institutes) care settings, with little bi-directional communication and coordination among these services. There is also little coordination and sharing of clinical data between in-patient care and out-patient care.

The answer to this low level of interaction is the implementation of Health-IT Standards. Health-IT standards provide the foundation for institutional data sharing with disparate healthcare systems and integration of this clinical data with diagnostic equipment such as CT scan, USG, Auto analyzer, etc. We examine the different functional aspects of the Health-IT Standards.

INTEROPERABILITY

Interoperability is the ability of two or more systems or components to interchange information and use predictably the information that has been exchanged.

CATEGORIZATION OF INTEROPERABILITY

Technical Interoperability

It is the ability to move data from system A to system B and vice versa. It defines the degree to which the information can be successfully "transported" between the systems.

Semantic Interoperability

This ensures that both systems understand the data in the same way. The sent information remains unaltered in its meaning.

Process Interoperability

It enables business processes and organizations like system A and system B to work together. It defines the degree to which the integrity of workflow processes can be maintained between the systems. This includes maintaining/conveying information such as user roles between systems.

In order to realize clinical data sharing i.e. system interoperability among disparate healthcare systems and integration with healthcare devices, all Health Information Systems have to adhere to the same standards.

Today, there are various Standards Development Organizations (SDOs), Special Interest Groups (SIGs) and other initiatives to address the IT standards in healthcare systems. ,

SOME STANDARDS DEVELOPMENT ORGANIZATIONS (SDOS) AND TOOLS

HL7 (Health Level Seven) is a standard for sharing of clinical and administrative data. The main objective of HL7 is to provide standards for exchange, management and integration of data that support clinical patient care and the management, delivery and evaluation of healthcare services. Specifically, to create flexible, cost effective approaches, standards, guidelines, methodologies, and related services for interoperability between Healthcare Information Systems.

● **HL7 Messages** transfer electronic data between disparate healthcare systems. Each HL7 message sends information about a particular event such as patient registration, admission, discharge, physician order entry etc.

● **HL7 v2.x Messages** mostly uses a textual, non-XML encoding syntax based on delimiters as exemplified in box.

● Order Message from HIS to external LIS/ Auto Analyzer

● The HL7 version 3 messaging standard defines a series of electronic messages (called interactions) to support all

```
Order Message from HIS to external LIS/ Auto Analyzer:
MSH|^~\&|HIS|HIE|LIS|HIE|20060307110114||ORM^O01|MSGID20060307110114|P|2.3

PID|||12001||Sharma^Anil^^^Mr.||19670824|M|||West Tripura.
^^Kunjaban^CO^799006^INDIA|||||||PV1||O|OP^PAREG^||||2342^Sharma^Ram|||OP|||||||||2|||||||||||||||||||||||||20060307110111|

ORC|NW|20060307110114

OBR|1|20060307110114||003038^Urinalysis^L|||20060307110114

Response Message from external LIS/ Auto Analyzer to  HIS:
MSH|^~\&|LIS|HIE|HIS|HIE|20060307110114||ORU^R01|MSGID20060307110114|P|2.3

PID|||12001||Sharma^Anil^^^Mr.||19670824|M|||West
Tripura^^Kunjaban^CO^799006^INDIA|||||||PV1||O|OP^PAREG^||||2342^Sharma^Ram|||OP|||||||||2|||||||||||||||||||||||||20060307110111|

ORC|NW|20060307110114

OBR|1|20060307110114||003038^Urinalysis^L|||20060307110114

OBX|1|NM|013060^Specific Gravity^L||1.010||1.005-1.030|||N|F|...

OBX|2|CE|013045^Urine-Color^L||Y^Yellow^L||Y|||N|F|...

OBX|3|ST|013052^Appearance^L||Hazy||Clear|A||N|F|...
```

healthcare workflows. HL7 v3 messages are based on an XML encoding syntax.

INTERNATIONAL CLASSIFICATION OF DISEASES

The International Classification of Diseases (ICD) is the standard diagnostic tool for epidemiology, health management and clinical purposes. This includes the analysis of the general health situation of population groups. It is used to monitor the incidence and prevalence of diseases and other health problems.

List of standard code provided by ICD

ICD-9 (Ninth Revision), ICD-10 (Tenth Revision), ICD-9-CM (Ninth Revision, Clinical Modification), ICD-10-CM (Tenth Revision, Clinical Modification), ICF (International Classification of Functioning, Disability and Health), Classification of Death and Injury Resulting from Terrorism

LOGICAL OBSERVATION IDENTIFIERS NAMES AND CODES (LOINC)

It is a universal coding system for identifying laboratory and clinical observations. LOINC has standardized terminology for all kind of observations and measurements that enables exchange and aggregation of electronic health data from many independent systems.

INTERNATIONAL HEALTH TERMINOLOGY DEVELOPMENT ORGANIZATION (IHTSDO)

IHTSDO is a not-for-profit association that owns and maintains SNOMED CT (Systematized Nomenclature of Medicine Clinical Terms). SNOMED CT is a clinical healthcare terminology, essential for electronic health records, a terminology that can cross-map to other international standards.

DIGITAL IMAGING AND COMMUNICATIONS IN MEDICINE (DICOM)

DICOM is a specification and format for storing medical images in a digital file. It defines a method of communication among various equipments of digital medical imaging devices/software ("modalities"). This standard is now in use by the majority of medical imaging hardware manufacturers.

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS STANDARD 1073

IEEE 11073 Health informatics - Medical / health device communication standards enable communication between medical, health care and wellness devices and with external computer systems.. They

1. provide real-time plug-and-play interoperability for citizen-related medical, healthcare and wellness devices.

2. facilitate efficient exchange of care device data, acquired at the point-of-care, in all care environments.

UNIFIED MEDICAL LANGUAGE SYSTEM (UML)

The UMLS, or Unified Medical Language System, is a set of files and software that brings together many health and biomedical vocabularies and standards to enable interoperability between computer systems.

MEDICAL VOCABULARIES

Medical Vocabularies like ICD, SNOMED-CT, LOINC are the tools to standardize information in order to capture, store, exchange, search and analyze data. It reduces ambiguity that is inherent in normal human languages eg. heart attack, myocardial infarction, and MI may mean the same to a physician, but have no relation to a computer, which can be represented by one unique code i. e I21.0 of ICD-10.

WHY HEALTH IT INTEROPERABILITY IS IMPORTANT?

1. Improve exchange of information between Health IT systems

2. Make improved health decisions based on complete clinical standard data

3. Superior healthcare for the patients

4. Reduce cost and complexity in order to provide quality health care services

5. Enable future-ready solutions for health care

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SEHORE:

Heralding a Paradigm Shift in e-Governance Regime

Sehore lies in the foothills of Vindhyachal Range surrounded by of Malwa region in Madhya Pradesh. It is about 39 Kms away from the state capital Bhopal towards south and spread across 6578 Sq. Kms. Shaiva, Shakta, Jain, Vaishnav, Budhists and Nath priests made Sehore a significant seat of their deep meditation. The district is divided into 8 tehsils, 5 sub-divisions and 1080 villages with a population of little over 13.11 lakh. It has a high literacy rate of 72.1% and more then 1800 schools are involved in imparting education to the children of the district.

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Edited by Anshu Rohatgi

NIC District Centre Sehore was established in year 1989 to serve the IT needs of district administration and to promote ICT culture among the government departments and citizens through the method of active participation and support. NIC Sehore implemented and developed many successful e-Governance projects leading to paradigm shift in the entire governance structure. Some major e-Governance initiatives in the district include -

ATTENDANCE AND LEAVE MONITORING SYSTEM

The district administration entrusted NIC with the responsibility to design and develop a web based application for daily monitoring of teachers attendance and leaves in the schools of Sehore. The Teachers Attendance and Leave Monitoring System is an effective, efficient and transparent system for monitoring of daily teachers attendance and leave records. This application captures and monitors the daily attendance of around 6000 teachers. Similarly, the Health Department is daily capturing and monitoring the presence of doctors in health institutes.

e-SUGAM

e-Sugam is a web-based solution for monitoring of public grievances and departmental letters. The district administration receives the letters and applications as public grievances from

Kissan Khet Pathshala, Agriculture Officers in block level VC studios

various sources like –

1. Hon'ble Chief Minister, Ministers and other public representatives

2. Application received during weekly "Jan Sunwai"

3. Public Grievances application received other than "Jan Sunwai"

4. Letters received from Government departments under "Time Limit Paper" category

A system has been developed and implemented for efficient monitoring of all categories of applications and letters on single platform. All the letters are entered and electronically forwarded to the concerned officers for redressal. The application is in use by district administration as well as by 125 district and block level offices.

LAND RECORDS COMPUTERIZATION

The Bhu-Abhilekh and Bhu-Naksha applications of Government of Madhya Pradesh, to facilitate land records system in the state, have been implemented in the district Sehore. Bhu-Abhilekh comprises of a computerized master database of land records that stores plot-wise and owner-wise details of land, crops, land type, tenancy etc. While Bhu-Naksha takes care of the spatial component of the land records.

Demonstration of e-Uparjan application to the Hon'ble Chief Minister of M.P.

In Sehore, a campaign was launched by district administration to update computerized land record data in time bound manner. NIC Sehore provided technical support in updation work. It installed the Bhu-Abhilekh application on 56 personal computers for data updation of Khasra records and also implemented the Bhu-Naksha application. The cadastral maps were updated on the vector sheets as per updated current record, due to this Revenue Department was able to provide digitized cadastral maps along with copy of the Record of Rights (ROR), Khatauni to the citizens.

Efforts are also in progress for conversion of Patwari Basta into e-Basta in the district to improve the citizen interface as well as the efficiency of grass-root level employees of land records.

e-UPARJAN
e-Uparjan is an initiative of Department of Food, Civil Supplies & Consumer Protection to strengthen the procurement operations under MSP (Minimum Support Price) and to develop real-time reporting mechanism at various levels, besides decision support system for enhancing the forecasting, monitoring & tracking capabilities of the Department. The system also ensures transparency along with development of a unified database of farmers of the state.

LPG CYLINDER DISTRIBUTION MONITORING SYSTEM
In order to bring transparency in the LPG distribution system in the district, a database of Gas Agencies and customers has been prepared. Sehore has 11 Gas Agencies and more than 91,000 regular gas customers. These Gas Agencies have to enter their daily stock position i.e. number of cylinders received, number of cylinders distributed along with customer details and waiting list position for gas distribution on the application. Using this system, district authorities and citizens can monitor the stock position and distribution status with waiting list over the web at any point of time.

e-SAMWAD
e-Samwad (Desktop Video Conferencing System) is an electronic audio-video interaction between district administration, block level administration, citizens, farmers and students. It is an initiative by Collector and District Magistrate, Sehore Shri Kavindra

District Collector Shri Kavindra Kiyawat in a VC session

Kiwayat to provide a platform to the administration and field level functionaries for effective interaction & monitoring of government schemes up to the block level.

For effective use of desktop video conferencing facility, the district administration has setup district and block level video conferencing studios. The district level VC studio has a seating capacity of 35 officials while the block level VC studio can accommodate around 100-125 participants. NIC, Sehore played a key role in establishment of VC studios in the district and provided all technical support for smooth conduction of video conferencing between district and blocks. NIC's video conferencing portal has been extensively used for this purpose. The e-Samvad facilitates the following activities- e-Jansunwai, e-JanVarta, e-Samiksha, e-Training, e-Kissan Khet Pathshala, e-Shiksha etc.

Since Aug 2012 till 31 December 2012, around 45 VC sessions (97 hours) have been conducted and around 320 employees from district headquarter and 9310 officers/employees/farmers/students have participated in the VC sessions.

e-SCHOLARSHIP
District Sehore was selected for pilot implementation of state-level web based application "e-Scholarship". About 25,000 online applications were received from students of 24 government/private colleges of the district and scholarship have been disbursed to student using the online portal.

OTHER NATIONAL AND STATE PROJECTS
Many other national and state level projects have been implemented in the district, right up to the block level that have helped the district administration in its quest towards e-Governance. MP Public Service Guarantee Act, BRISC MIS (Bank Recovery Incentive Scheme), NADRS (National Animal Disease Reporting System), PARAKH, Jan Sunwai MIS, Social & Economic Cost Census (SECC), Application for "Jan Shruti Abhiyan" and "Antyodaya Mela" are just a few from the exhaustive list of 30+ projects.

WEBSITE DEVELOPMENT
The official website of district Sehore has been designed & maintained by the NIC district centre in coordination with the district administration. It is a major source of information about Sehore for the citizens. NIC Sehore is also providing the facility to develop website for various government departments in the district. During last couple of years, websites of six departments have been developed and hosted on NIC Server.

TRAINING AND WORKSHOPS
NIC Sehore has conducted a spectrum of need based ICT training programmes from time to time besides organizing several seminars & workshops. In the last three years, since January 2010, training has been imparted to more than 840 Government officials at various levels. The efforts of NIC Sehore have been continuously applauded by the district administration.

ROHTAS:

Empowering the Masses through e-Governance

Sasaram, the administrative headquarters of the district Rohtas (Bihar) - a place of historical importance, is surrounded by Bhojpur and Buxar district in the North, by Palamu and Garwah in the South, Aurangabad and a part of Gaya in the East and by Kaimur district in the West. Famous for the Tomb of Sher Shah, built towards the middle of the sixteenth century, is the second highest tomb in India. The Ashok inscription at Chand-tan-pir on a hill near Sasaram is of historical value. The economy is mainly based on agriculture with paddy, maize, wheat & barley being the main crop.

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Edited by Prashant Belawariar

NIC Rohtas District center has been providing ICT services to the district administration since 1989 – the year it was established. Since then many e-governance projects have been rolled out bringing transparency and efficiency in the administration thus providing timely services to the people.

The procurement MIS, e-Vipnan, implemented in the district, proved to be a major ICT initiatives in empowering the farmers. The implementation of e-PDS was welcomed both by the beneficiaries and the district administration.

e-VIPNAN – A STEP TOWARDS CLEAN PROCUREMENT
(http://onlineapp.bih.nic.in/kpc)

Rohtas is the one of largest procurer of rice from farmers through 'State Food Corporation' and different Purchase Centers including PACS. Earlier, the purchase data was maintained manually and it was very difficult to compile & collate and there was no transparency both to the farmers and the government. To facilitate free and fair record keeping in a transparent manner an online MIS software was developed by NIC and implemented at all the 24 Purchase

SANDEEP KUMAR R. PUDKALKATTI IAS
District Magistrate

Information Technology plays a vital role in providing good governance. District Administration, Rohtas with the help of NIC has implemented many e-Governance solutions and many are in implementation phase for providing better services to the citizens. I am sure they will keep up the good work in future and make Rohtas a model city in terms of e-Governance.

Centres in the district. Every purchase from the farmer is recorded in the software. The farmer details like name, photograph, purchase weight, amount of cheque along with total area and land details are captured.

Steps for Procurement (including those given by PACS):

• Farmer goes to Procurement Centre for issue of his token no.

• He deposits the original land receipt along with amount of paddy to sell.

• Purchase Centre Incharge sends this original land receipt along with other details to Circle Officer for verification.

• Circle officer verifies it and issues "enforcement" for purchase.

• The sequence is maintained for sending the 'Original Land Receipt' and other details for verification and receiving the enforcement.

• After the enforcement is received and as per the token number the farmer sells his produce at the purchase centre.

• A cheque is issued on the same day and photography is done along with the cheque.

• "Original Land Receipt" is returned to farmer with a stamp mentioning that the produce has been purchased for this land.

Every data related to purchase is made available in the public domain at district website (http://rohtas.bih.nic.in) for wider dissemination and viewing. The printouts of the data taken from the website are sent randomly to farmers for verification. The role based software has front-end in ASP.NET & the backend database is in SQL Server.

DISTRICT WEBSITE

The district website (http://rohtas.bih.nic.in) developed and hosted by NIC is one-stop source of information and provides all the information related to e-Governance activities in its 'News & Events section'. The detail information related to history, geography, statistics and tourists places etc. are available which have been augmented with the suitable photographs. The section on latest happenings attracts the visitors often.

The website developed for district court (http://dc-rohtas.bih.nic.in) and Jawahar Navodaya Vidyalaya (http://rohtas.bih.nic.in/JNV) are also among the popular ones.

e- PDS (COUPON TRACKING SYSTEM)

Earlier, it was difficult to track month wise utilization of ration, distributed through fair price shop (FPS). To track this, coupons are issued month wise /item wise to the beneficiaries for the whole year in advance. The beneficiary upon receiving his ration, submits the coupons item wise for the month to the FPS owner who in turn submits it to the Marketing Officer.

Online software was developed for coupon tracking. The issued coupon number and disbursed coupon are tracked and matched. The result is made available on the web site. The dealer wise ration stock can also be checked.

BIOMETRICS BASED ATTENDANCE MONITORING

Timeliness is a key to productivity. To improve efficiency and time discipline in the district, a biometrics system is being established at all 19 blocks, 3 sub-divisions and district headquarters. The devices will be GPRS based system and it will transmit all the attendance data to the central server established at Data Centre. Every employee will be registered on the finger print based biometrics device. They will mark their attendance at the start and at the end of the day. The monthly salary can be calculated as per the attendance records generated through software.

Besides this, NIC Rohtas is providing technical support to the district in administration in implementation of the following National & State level projects:

National Level Projects :
• e-Court – MMP Project

• Vahan (Vehicle Registration / Road Tax Coolection) & Sarathi (License Issue).

• NregaSoft (MIS for MNREGS)

• AWAASoft (MIS for Indira Awas)

• NADRS (MIS for Veterinary Department)

• PriaSoft (MIS for Panchayati Raj Department)

• PlanPlus (MIS for Zila Parishad)

• NDAL (National Database of Arms License)

State Level Projects :
• RTPS (Right to Public Service Act)

• Asset Declaration

• e-PDS (PDS Coupon Tracking System)

• CTMIS (Comprehensive Treasury MIS)

• BISWAN (Bihar State Wide Area Network)

• IWDMS

For Further Information:
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ROHTAK:
ICT Hub for e-Governance in Haryana

The district derives its name from its headquarter town Rohtak, which is said to be a correction of Rohtashgarh, named after Raja Rohtash, in whose reign the city is said to have been built.

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Edited by Vivek Verma

NIC Rohtak District Centre, established in the year 1988, has contributed immensely in inculcating informatics culture in the district and at present is a hub for many e-Governance activities utilizing ICT for promoting transparency and good governance. With full support of District Administration, NIC has been able to accelerate the pace of e-Governance activities in the district.

e-PATWAR KENDRA
e-Patwar Kendra at Sampla was established to update data of Roznamcha etc, directly by the patwari himself, so that farmers and landlords could easily avail revenue related information. All the patwaries of tehsil are available for assisting public at e-Patwar Kendra.

PANCHAYAT/MC VOTERS LIST GENERATION SYSTEM
Through the new ICT based system, ward-wise voter-list is generated for use in Panchayat and MC Elections in a simplified manner. It is derived from the voter list of Assembly and Lok Sabha. The system has resulted in generation of correct lists thus saving a lot of time, money and efforts.

GENERAL ELECTIONS
Comprehensive ICT support was provided for Haryana General Assembly, Lok Sabha, Panchayat and MC Elections covering duty assignments, randomization of polling booths, polling parties, EVMs etc. Helplines were also established and operated successfully. Communication Plan, Result Dissemination and extensive ICT support services were provided round the clock during elections.

e-DISTRICT PROJECT
Shri Bhupinder Singh Hooda, Hon'ble Chief Minister, Haryana, launched citizen

VIKAS GUPTA IAS
Deputy Commissioner, Rohtak

Information technology has brought phenomenal change in delivery of services to the citizens making it faster, efficient and effective. District Administration in collaboration with NIC District Centre is committed to provide SMART services to its citizens. NIC District Centre, Rohtak is playing a pivotal role in providing and promoting the ICT culture by delegating accurate, transparent and responsive information and services to the district, which has radically changed the process of e-Governance in the district, enhancing transparency and betterment of citizen centric services. I appreciate, Mr. Munish Babu Gupta, DIO, Rohtak and his team for their dedicated efforts in making e-Governance initiatives successful in the district.

services delivery through e-Disha (Ekal Sewa Kendra for delivery of citizen services) centre at Rohtak. The centre has 20 ICT enabled counters, helpdesk and a token issuance system. The citizen services being delivered include services like registration of vehicles, different types of driving licenses, National and State Permits, NOC, NCRB Reports, Birth & Death certificates, Nakal of RoR,

Shri Bhupinder Singh Hooda, Hon'ble Chief Minister of Haryana, inaugurating the e-DISHA Centre

The team receiving National e-Governance Silver Icon Award for implementing Mustard Procurement System

applications for water/sewerage, Ration cards and social welfare schemes.

IMMUNIZATION INFORMATION SYSTEM

Launched by Sh. Deepender Singh Hooda, Hon'ble M.P. Rohtak, the application was developed to monitor the immunization records of children. The system enables easy storage of mobile numbers of parents or relatives of child during his/her birth along with other details. As per schedule of vaccine, an SMS is sent on their mobile to ensure timely immunization.

MUSTARD PROCUREMENT AND MONITORING SYSTEM

The system has been designed to facilitate farmers with market related information to ensure that they can sell their produce on Government prescribed rates in a hassle-free manner. The system is fed with data deduced by surveying a mustard sown field. Interpreting the same, system generates a coupon that provides information related to where, when and how much mustard can be sold by the farmer.

PROPERTY REGISTRATION

In Rohtak, around 250 property deeds are being registered daily through HARIS software. The stamp duty fee is generated automatically by the system as per collector rate. The system has facility to generate various reports like Reference Book, Index and Income Tax Statement required by the Income Tax Department.

LAND RECORDS

For automatic generation of new Jamabandis by incorporating mutations in the fixed period of time, HALRIS software is being used. The software is also being used for issuance of nakals of Jamabandi and mutations to the public.

ONLINE REGISTRATION FOR EMPLOYMENT

A system has been developed for the unemployed youth to register themselves online for employment in a hassle-free manner. The system rejoices wide scale acceptance among the common masses.

e-RECORD

Web Enabled Court Cases Software, is being used to generate Cause lists, Judgement writing etc. in the office of Divisional Commissioner and District Administration, Rohtak.

HEALTH

Suite of software packages for monitoring the prevention of food adulteration, Medical Certification of Cause of Death (MCCD), Processing Bed Occupancy & Mortality Rate, DOTS (Directly observed treatment short term for eradication of TB disease), Medicine Inventory Management and GOI sponsored IDSP (Integrated Disease Surveillance Project) has been installed in the district.

SOCIAL WELFARE DEPARTMENT

Online Haryana Pensions Processing & Information System has been implemented for about 1 lakh pensioners in the district. It is helping in timely disbursement of pension to Old age, Widows, Handicapped, MR, Ladli, FADC and other types of pensioners.

SENIOR CITIZEN ID CARD SOFTWARE

The project has been implemented in the district for creating database of senior citizens along with issuing them ID Cards besides dispensing other benefits.

PUBLIC GRIEVANCE MONITORING SYSTEM (http://harsamadhan.gov.in)

This system has been implemented across the district for speedy disposals of grievances.

POST OFFICE

Post offices of Rohtak District have been connected with 2 Mbps leased line through NIC District Center for e-Services to citizen. Computerized Postal Life Insurance, Western Union Money, EMO services, Speed Post services, New Pension Scheme, Postal Accounting System and e-Post etc are being implemented at the Post Offices.

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BLACK BUSINESS FINDER (BBF): A NEW APP LAUNCHED FOR INDIGENOUS BUSINESSES IN AUSTRALIA

In order to leverage the indigenous businesses and nurture them with a conducive growth environment, the Queensland Government, Australia has established an online database of Aboriginal and Torres Strait Islander businesses. The database has been named as Black Business Finder (BBF).

The online database is further linked to ICN Gateway, a comprehensive online system with more than 60,000 listed suppliers and around AU$247 billion worth of projects. The database also serves as an effective tool for major project owners in construction, agriculture, mining and tourism to source goods and services from local indigenous businesses.

The registering businesses on ICN have to create their Company Profile in a 3-step process. After this, they may register expressions of interest in opportunities that have been listed on ICN Gateway.

The project will prove as a milestone in providing long term economic independence and social security to the families of the Aboriginal community, which according to 2006 survey, only 6% of them worked in their own businesses when compared to 17% of non-indigenous people. The project aims to achieve this by integrating the indigenous communities' businesses into supply chains of government and private sector.

For Further Information
http://www.bbf.org.au/

ACCESS TO INFORMATION AND PRIVACY (ATIP) PORTAL FOR ONLINE REQUEST LAUNCHED IN CANADA

To ensure more responsive and transparent governance, the Government of Canada has launched a portal called Access to Information and Privacy (ATIP) Online Request to facilitate the citizens requesting information under the Access to Information Act or the Privacy Act of the country. Under these two acts, Canadian citizens have the access to most government related information except some crucial documents such as Cabinet related documents and information that could be injurious to Canada's security or economy, federal-provincial relations and international affairs. At present, all the citizens of Canada, permanent residents and corporation in Canada are authorized to make a request under the Access to Information Act. Those who are not from the above category can ask a representative (a Canadian citizen or permanent resident) to make a request on his/her behalf with a written consent.

The new portal promises of streamlining the process of requesting government records and make it altogether simpler and user-friendly. Now it is not at all essential for users to print and mail paper-based applications to different departments as they can directly upload supporting documents such as proof of identity with their application, online. Besides this, the portal also allows requestors to securely pay the application fee through their credit cards.

At present, three Government Departments viz. the Treasury Board Secretariat (TBS), Shared Services Canada (SSC) and Citizenship and Immigration Canada (CIC) are involved in the pilot phase of the project. In due time, government has planned to extend the project to incorporate other federal institutions under its commitments envisaged under Canada's Open Government Action Plan.

For Further Information
https://atip-aiprp.apps.gc.ca/

ONLINE CENSUS 2013 REJOICES WIDESPREAD POPULARITY IN NEW ZEALAND

Online Census 2013 has earned wide scale acceptance among citizens of New Zealand. Launched for the first time during 2006 Census, the online system ensures that data is collected quickly, safely and easily along with improved respondents' experience. The 2013 online census system is overall similar to 2006's, with only few minor updates.

With the new online forms, respondents are now automatically routed past questions they don't need to answer, based on their answers to the preceding questions. The new form also ensures that only numeric characters can be used where only a numeric response is required. Also, an automatic consistency checker prevents all types of contradictory responses.

Statistics New Zealand, the government department which has been primarily involved in conducting the census, intended to have 35 per cent of respondents, or around 2 million people, participating in the Online Census 2013 by filling the form.

The census has started on Tuesday, 5 March 2013. All citizens of New Zealand are required legally to participate in the census and if they fail to do so will be fined up to $500. The results of the 2013 Census will be released starting from December 2013.

For Further Information
http://www.census.govt.nz/

ELECTRONIC TENDERING SYSTEM COMMENCED IN ABU DHABI

An electronic tendering system has been launched in Abu Dhabi which facilitates suppliers and contractors (both inside and outside UAE) to record and submit their bids electronically for tenders issued by the Department of Finance. The system has been developed by Abu Dhabi Department of Economic Development (ADDED) in close collaboration with Department of Finance. The new system will take up all the tasks linked with the procurement process viz. bidding, offer evaluation, contract awarding and reimbursement. The suppliers from Private sector can now register themselves on the department website by furnishing details such as trade license registration number and expiry date, commercial license number, and services and products available.

On the launch of the system, Dr. Hazem Turki Al-Khatib, Director of the Information Technology Division, said "The electronic registration system of suppliers and contractors and the electronic tenders system were developed adopting the highest technical standards. The cooperation between the Department of Finance and Oracle Global Co. resulted in producing an integrated system which is superior to other similar systems as regards registering suppliers and contractors on the website, informing them of tenders by the Department according to their business line and type of service provided, and up to the Department receiving of their quotations and remarks through the system. Both systems will also enable new suppliers the opportunity to register in the Department of Finance's register of suppliers and participate in the Department's tenders, inquire and track their invoices, review purchase orders issued to them, as well as providing them with
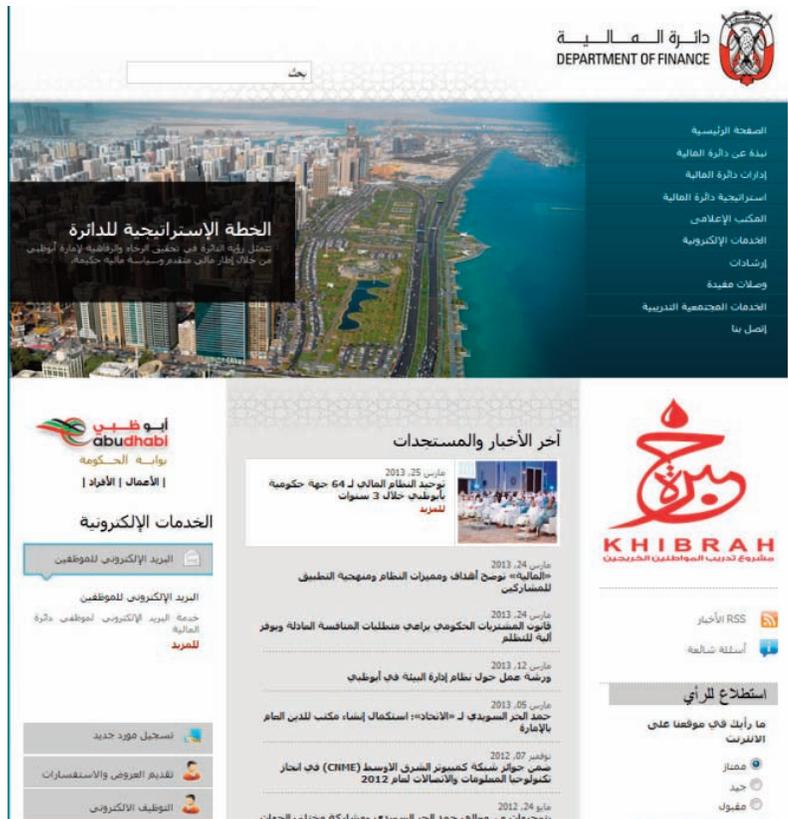
results of their participation in any of the Department's tenders; while the Department enables existing suppliers to complete their registration formalities by writing to suppliers@dof.abudhabi.ae".

For Further Information
http://www.census.govt.nz/

NATIONAL INSTITUTE FOR THE ORTHOPAEDICALLY HANDICAPPED (NIOH), KOLKATA

National Institute for the Orthopaedically Handicapped was established in the year 1978 as an autonomous, apex organization in the area of locomotor disability, under the Ministry of Social Justice and Empowerment, Government of India. It is located in the city of Kolkata and expanding its services countrywide with three Regional Centers at Patna, Dehradun and Aizawal.

NIOH is primarily involved in developing human resource for providing services to the orthopaedically handicapped population. It also conducts and sponsors research in all aspects related to the rehabilitation of the orthopaedically handicapped and provides services in the area of rehabilitation, restorative surgery, aids and appliances and vocation training to the persons with disability.

The website of the organization is rich in content which seems to be updated on the frequent basis. The information related to clinical services, legislation, rehabilitation services along with the details of various Departments of NIOH, Regional Centers and Library are made available on the website. Information related to tenders, press releases, advertisements and results are provided in the Notice Board, prominently placed on the right side of the homepage. The website also claims to be the first Government website in India to have Accessible PDFs, including Accessible Interactive PDF forms.

http://niohkol.nic.in

CONTENT: ★★★★
NAVIGATION AND BROWSER COMPATIBILITY: ★★★★
DESIGN: ★★★
INTERACTIVITY ELEMENTS: ★★★

The website is well organized and diligently designed with well placed visual branding elements. It also has clutter-free, minimalistic design. In terms of interactivity, the users can submit their suggestions in the box provided inside the "Contact Us" page. The website is quite compatible with all major browsers.

MAJULI CULTURAL LANDSCAPE MANAGEMENT AUTHORITY (MCLMA), ASSAM

Majuli Cultural Landscape Management Authority (MCLMA) is a statutory body constituted under the provision of the Majuli Cultural Landscape Region (MCLR) Act 2006, which has

http://majulilandscape.gov.in/

CONTENT: ★★★★
NAVIGATION AND BROWSER COMPATIBILITY: ★★★★
DESIGN: ★★★★★
INTERACTIVITY ELEMENTS: ★★

mandated the authority to integrate development and heritage for protection of traditional resources of MCLR through education, awareness, understanding of cultural significance and ensuring a sustainable and positive development trend. The key role of the authority is to protect the living & non-living cultural resources, implement the management plan, co-ordinate and monitor development of socio-economic, socio-cultural activities, including disaster mitigation and prepare risk preparedness plan for the entire landscape region. The website has been designed and developed by NIC, Assam State Centre.

Overall, the website of the authority has a very pleasing look. The rich graphics make the website visually appealing. The site incorporates innovative navigation menus to ensure quick and easy access to the information. The header contains various images depicting the rich, cultural legacy of Majuli region, and these are portrayed through an image slider. Exhaustive information is provided on the culture, holy places, tourist hotspots, flora and fauna, geography and District Administration of the Majuli sub-division. Information related to Key Contacts, Government Offices, Police Stations, Banks and major NGOs located in Majuli is also provided.

With conscientiously planned design and vibrant mix of colours, the website scores high on the designing front. The website seems to be compatible with all major browsers.

GUJARAT POLLUTION CONTROL BOARD (GPCB)

The Gujarat Pollution Control Board (GPCB) is a premier body constituted by Government of Gujarat with a view to protect the environment, prevent and control the pollution of air and water in the state. The board has been entrusted with the Central Acts and relevant rules for pollution control as notified thereof from time to time. The important functions being performed by the board include monitoring of water and air quality, effluent sampling and analysis, inspection in respect of performance of effluent treatment plants and air pollution control equipment among others.

The website of the board is well designed with visually appealing look. The website deploys judicious use of colors that are sober in nature. Use of refined graphics makes the website more engaging.

The website uses structured navigation for easy steering. It seems to be quite compatible with all major browsers.

The website is rich in information. The header region of the website comprises of information related to GPCB such as its aim, mission, vision, functions and priorities, projects undertaken by the board, Environmental clearance guidelines, RTI, notifications, tenders, publications, presentations, FAQs along with contact information of the Head Office, Regional Offices and Vigilance Offices of the board. The left side of the homepage is dedicated for resources section while the right side showcases the important, recent news.
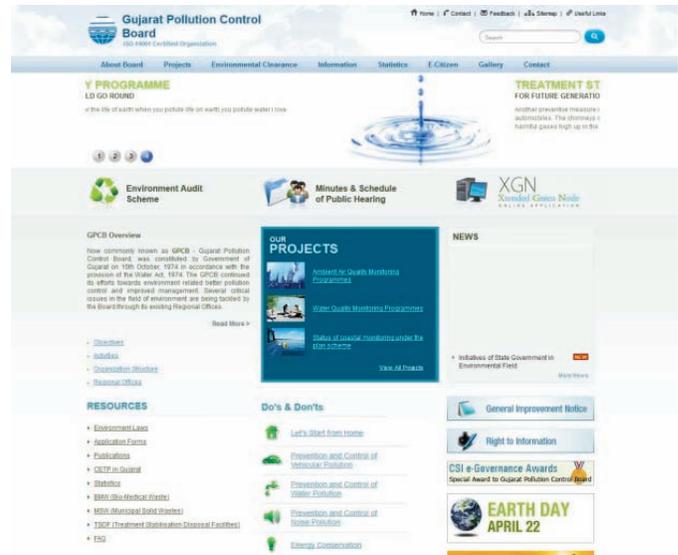
http://www.gpcb.gov.in

CONTENT: ★★★★
NAVIGATION AND BROWSER COMPATIBILITY: ★★★
DESIGN: ★★★★★
INTERACTIVITY ELEMENTS: ★★★★

The website has a well structured site map for enhanced searchability and also has a feedback section for obtaining important suggestions and feedback from users.

NEWS ON AIR

All India Radio (AIR) is among the premier broadcasting organizations in the world. The News Services Division (NSD) of All India Radio disseminates news and comments to listeners in India and abroad. Started from 27 news bulletins in 1939-40, AIR today puts more than 651 bulletins daily around 55 hours in 91 languages/dialects in the Home, Regional and External Services.

The News on AIR website is an exhaustive repository of latest, up-to-date information which is well categorized under various groups such as Top Headlines, National and International News, News from the world of Sports, Business, Entertainment and States. Important news is also flashed through a ticker just below the header.

The right side of the homepage is reserved for important announcements, featured news & articles, related websites, Interviews and weather related information. The website offers Audio feature which enables the users to listen to the important news in English, Hindi and Urdu along with other regional languages. A dedicated search button and clean layout make it easy for users to navigate smoothly through the website.

The website is well designed and compatible with all major browsers. It also prominently features links to RSS feeds and major Social Media websites such as Facebook and twitter. Links for SMS and NOP services are also provided.

http://airnsd.nic.in/

CONTENT: ★★★★★
NAVIGATION AND BROWSER COMPATIBILITY: ★★★
DESIGN: ★★★
INTERACTIVITY ELEMENTS: ★★★★

Contributed By:
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E-GOV KNOWLEDGE EXCHANGE FORUM 2013 HELD IN SRINAGAR

A two day forum on E-Gov Knowledge Exchange, jointly organized by Government of Jammu and Kashmir and Elets Techno Media Pvt. Ltd., held in Srinagar from 23rd to 25th May 2013. Commissioner Secretary, Science & Technology and Information Technology Department, Government of J&K was the Person in Chair of the event. NICSI was the esteemed "Government Partner" to the eGov Knowledge Exchange Forum. NICSI along with NIC J&K exhibited the various projects in the field of Knowledge Exchange. The two day forum brought together key representatives from all areas of Governance, ICT industry and Civil Society.

The forum served as a unique platform for knowledge sharing in various areas of e-Governance. Many key officials from the state of Jammu and Kashmir, Central Government and also from other states put forth their ideas on e-Governance.

eGov Knowledge Exchange Forum was inaugurated by Shri Omar Abdullah, Hon'ble Chief Minister of Jammu and Kashmir. The key personalities who participated in the event were Dr. Killi Kruparani, Minister of State, Ministry of Communications and Information Technology, Government of India, Shri Feroz Ahmad Khan, Hon'ble Minister of State (Independent Charge) Information Technology, Science & Technology; Additional Charge of School Education, Medical Education, Youth Services and Sports, Government of Jammu & Kashmir, Shri J Satyanarayana, Secretary, Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India. The participating dignitaries discussed and shared their experiences and hurdles faced during implementation of e-Governance applications in their respective states.

Shri Abhay Kumar, Senior TD & SIO, Jammu and Kashmir has been presented an award for his role in handling Central Mission Mode projects in Jammu and Kashmir. Also, Shri Suresh Kumar, Principal Secretary Home Department, Government of Jammu and Kashmir has been awarded eGov Champion Award for introducing the e-Governance in Municipal Bodies. The project has been jointly executed by NIC/NICSI Jammu and Kashmir along with SDU, Pune.

Jitraj, J&K

Dr Killi Kruparani, Minister of State, Ministry of Communications and Information Technology, Government of India presenting award for Handholding Central Mission Mode projects in J&K to Shri Abhay Kumar SIO, NIC J&K

Hon'ble CM J&K, Shri Omar Abdullah giving keynote address

ODBC COMPLIANT DATABASE INTEGRATOR LAUNCHED

T he Prison Division of NIC has developed a utility for integrating ODBC compliant databases in the vertical as well as horizontal manner. It is primarily developed using .NET framework. However, if required, the web service can be deployed in the open source environment also. At the user domains, the utility has been customized to fetch the incremental data from the domain tables, update the upload-status of the record uploaded, need based fetching of the selected data in the domain tables along with insertion and updation of data into buffer tables, located at the domains. At the Central Schedular, the system utility connects all domains and start selecting incremental data from all domains, updates the upload status and inserts/updates data in all the domains where it is defined to be inserted.

This utility has been made operational at NIC Delhi and Himachal Pradesh. It is working perfectly in tune with the data requirements of Police, Court and Prisons of Mandi District as desired by the Hon'ble Chief Justice of Himachal Pradesh. ePrisons application of NIC has been installed at NIC-HP Shimla and made operational at three jails: Kanda, Mandi and Shimla of Himachal Pradesh.

This database integrator developed for CJDS is tested thoroughly and is available for any NIC division looking to integrate this utility with their own applications/projects, where database integration is required both vertically and horizontally.

Rajiv Prakash Saxena, Delhi

e-PANJEEYAN PROJECT FROM ASSAM SETS NEW STANDARDS

NIC Assam State Centre, in collaboration with Revenue & Disaster Management Department, Government of Assam, bagged the Gold Award in National e-Governance Award 2012-13 under the category Government Process Re-engineering (GPR) in the recently concluded 16th National Conference on e-Governance held at Jaipur on 11th & 12th February, 2013. This Award is in recognition to the state-wide rollout of the e-Panjeeyan (Registration) Project in 75 Sub-Registrar Offices (SROs), and the extensive Government Process Re-engineering (GPR) carried out in the process. The Selection Committee especially appreciated the drastic reduction in time in providing the original copy of the deed to the concerned parties; earlier, in the pre-computerization period, it used to take 9-10 years in bigger places like Guwahati to get the original copy; now it has been reduced to a single day. Unlike in some other states, this project not only caters to property registration but all kinds of registrations including marriages. e-Panjeeyan has been successfully integrated with e-Stamping solution from Stock-holding Corporation of India Ltd (SHCIL) on one hand and Dharitree (Land records Computerization) on the other.

The Revenue and Disaster Management Department (R&DM), Government of Assam, has initiated the state-wide rollout of computerization of registration, which is being implemented under the Asian Development Bank-funded Assam Governance and Public Resource Management Project (AGPRMP). In Assam, there are 77 Sub-Registrar Offices out of which four Sub-Registrar Offices have already been computerized under the Pilot Project. The software solution (e-Panjeeyan) for the computerization of registration project has been provided by the NIC Assam State Centre, and is based on JEE and MySQL with an object-oriented approach. The software is designed as per the rules of the Registration Act, and built with the objective of providing operational and decision-making support to all activities of the Sub-Registrar Office. The application software provides solutions for the pre-registration, registration and post-registration activities of Sub-Registrar's Office. It also supports web services for interopreatability with Land Record System, e-Stamping and exporting data to a central server for data storage.

The Gold Award under GPR Category being received by Shri VK Pipersenia, IAS, Pricipal Secretary (Revenue & DM), Government of Assam other Revenue officials (at centre), Shri Deepak Goswami, SIO, NIC Assam (to right), Shri Devajit Bhattacharyya, TD, NIC Assam (to left) and Shri Rahul Deka, Programmer, NIC Assam (extreme right)

Debajit Bhattacharya, Assam

CM CHHATTISGARH LAUNCHES ONLINE MONITORING OF PUBLIC WELFARE SCHEMES IN MAHASAMUND DISTRICT

District Collector, Mahasamund introduced the concept of appointing Nodal Officer at each and every gram panchayat of district to monitor the status of public welfare schemes launched by the State/Central Governments. Appointed Nodal Officer could be government employee at nearby village/village panchayat/block. Every Nodal Officer must visit his assigned village panchayat or village once in a month to take stock of public welfare schemes of various sectors like 'Anganbadi, education, health, PDS. Every Nodal Officer then prepares a progress report and submits it to respective SDM/CEO Janpad who in turn compiles the reports of all village panchayat of their block and submits to the collector.

In order to eliminate cumbersome manual report preparation and inherent delays, NIC District centre Mahasamund took initiative to design and develop the application software to computerize these processes. Nodal officers can log in online by using their credentials to update the monthly progress. Higher officials can then generate multiple online reports to enable appropriate decision making.

This application has been successfully inaugurated by the Hon'ble Chief

Collector, Mahasamund together with DIO NIC demonstrating application to Dr. Raman Singh, CM Chhattisgarh

Minister of Chhattisgarh, Dr. Raman Singh on the 23rd May 2013 in Mahasamund District. The application can be accessed at http://cg.nic.in/mahasamund.

Y.V. Shreenivas Rao, Chattisgarh

EVENT MARKED THE CELEBRATION OF 1001 INSTITUTES CONNECTED UNDER NKN

An event has been organized at Shastri Park, New Delhi on 9th May, 2013 to commemorate the linking of 1001 institutions under the NKN program. Dr R. Chidambaram, PSA to Government of India & Chairman, High Level Committee, NKN, Prof S V Raghavan, Scientific Secretary at Office of Principal Scientific Advisor to GoI, Dr. B K Gairola, Mission Director (e-Governance), DeitY and Shri M Moni, Director General, National Informatics Centre were the main speakers of the event. The event was also attended by DDGs and Senior Officials of NIC along with NKN team. SIOs from various states also joined the event through video conferencing.

The event started with welcoming of the guests. Shri M Moni welcomed and addressed the audience. He congratulated the entire team behind NKN on successful achievement of providing connectivity to 1001 institutes. Shri Moni proposed the formation of 26 centers of excellence across the country. In this regard, he also highlighted on the technical skill development programme for persons above the rank of technical director.

Dr. B K Gairola addressing the audience

Dr. R Chidambaram addressed the audience with a presentation on NKN & the Third Industrial Revolution. He showcased the journey of NKN since inception and also shared his thoughts on the future roadmap. In his address, Dr.

Raghavan emphasized on the need for high quality and reliable skill development. He also spoke about the third industrial revolution which is driven by Internet and Digital manufacturing. He shared future plans in which NKN aims to create a large number of grids and super grids.

Dr. B K Gairola also addressed the gathering and thanked the entire team behind the success of NKN. He encouraged the team to work as a cohesive unit and achieve the desired result.

Prof. S V Raghavan complimented the NKN team headed by Shri R S Mani for implementing the project in a systematic manner.

Seema Khanna, Delhi

(L to R) Dr. B K Gairola, Prof. S V Raghavan, Dr. R Chidambaram & Shri M Moni addressing the audience

THE LAUNCH OF "IN PURSUIT OF AN IDEA" - CREATIVE COLLABORATION ON OPEN GOVERNMENT DATA FOR INNOVATION

In association with Institute of Informatics & Communication (IIC), University of Delhi (http://www.iic.ac.in/web/), a unique event- "In Pursuit of an Idea" has been organized, to encourage creative collaboration on Open Government Data for innovation. Students from University of Delhi and professionals from the diverse fields will develop apps, visualizations, info-graphics and data-sanitation based on the 'New Ideas' given by the citizens at large.

The event was launched on 24th May 2013. Senior officials from DGFT (http://dgft.gov.in), NIC and the University apart from civil society, developer community and academia participated in the ceremony.

Overview of the event

The event is spread over to 60 days and will be executed in two phases. Phase one of the project would be for idea generation and phase two would be to build solutions around the shortlisted ideas. The students along with experienced mentors from across the world in developer communities will be working on various sectors including but not limited to Trade, Energy, Agriculture, Drinking Water & Sanitation, Education & Skill Development, Health & Family Welfare and an Open category relevant to the emerging needs of the country.

The final outcome would be in the form of visualizations, mobile apps, web apps etc. These final products could be showcased on the data portal (http://data.gov.in/community/idea-collaboration). All materials, code and data generated will be placed public domain under creative commons (http://creativecommons.org/) license so

that it may be reused, remixed and further enhanced.

During development phase of the project, young minds will be challenged and ignited with an innovative framework to collaborate with different stakeholders of the society to work on pressing needs of the country so that they would come out with innovative solutions for public good. It is expected that this endeavour will forge a collaborative environment between government, students and citizens at large to address real world problems with Open Data innovations.

Interested users can come forward and

Event in progress

contribute to the idea corpus through the event home page http://data.gov.in/community/idea-collaboration. They can even share their valuable feedback on the event page on Facebook at https://www.facebook.com/events/55876691747990.

D.P.Misra, Delhi

ONLINE FORM-C AND S-FORM UNDER IVFRT MMP LAUNCHED AT FRO, PATNA

Online Form-C and S-Form under IVFRT MMP was launched at FRO, Patna soon after a meeting held by Foreign Regional Office (FRRO), Kolkata with Guest Houses/Hotel Owners and Educational Institutions on18/06/2013 in the Conference Hall of Patna Collectorate.

Shri Shakeel Ahmed, FRRO, Kolkata gave an overview of IVFRT MMP in the inaugural session to sensitize representatives from Hotels and Educational Institutions. He informed them about the computerized Visa, Immigration and Foreigners Registration and other services being rendered to

Foreigners under IVFRT project.

Shri Rajiv Ranjan, Project Co-ordinator, NIC Bihar gave technical presentation on Online Services for Foreigners, Online Form-C and S-Form to enable representatives from Hotels and Educational Institutions to know about various modules under IVFRT and how to use them. In particular, they were informed about online registration, approval process so as to access the online system. Shri Rabindra Kumar Singh, DIO, Patna and Shri Sanjay Kumar Singh, ADIO, Patna also participated in meeting and technical session.

Questions & Answer Session during Meeting for implementation of online Form-C and S-Form

Meeting -cum- presentation session for Online Form-C and S-Form at Patna

User manual for online Form-C and S-Form was provided to the participants.

Officials from FRO, Patna also participated for smooth implementation of c-FRO, Online Form-C and Online S-Form. Very first day of the meeting, one hotel got approval for registration for using online Form-C to submit arrival details of foreigners.

Questions & Answer session was jointly addressed by Shri Shakeel Ahmed, FRRO, Kolkata, Shri Manu Maharaj, SSP & FRO, Patna and NIC Officers.

Rajiv Ranjan, Bihar