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Informatics

GOOD GOVERNANCE WEEK CELEBRATION

Online GIS Monitoring System for Sericulture Development in Manipur

Integrated Online Hotel Reservation System for Himachal

Samagra Kutumba Survey System for Telangana

Kerala - Soaring high with ICT Success Stories

Hyper - V with Failover Clustering

WebCon - eLearning Services by NIC

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EDITORIAL

Nation witnessed the celebration of Good Governance Week with fervour recently. I feel it was a remarkable way to bid good-bye to yet another productive year which has seen several achievements and advancements using ICT in the country. During the weeklong celebration, many new nation-wide projects and programmes were initiated with ambitiously yet planned goals. I sincerely hope that newer tools and techniques of ICT would be explored and utilized to enhance the quality and efficiency of services rendered by the government. The lead story of this issue of Informatics is the 'Good Governance Week Celebration'. We bring you a detailed coverage, along with visual glimpses of the event.

Articles covered under the 'e-Gov Products and Services' section this time are West Bengal State Data Centre, Integrated Online Hotel Reservation System for Himachal, Telangana Samagra Kutumba Survey System, National e-District Portal and GIS based Online Monitoring System for Sericulture in Manipur.

'From the States' section feature Kerala for being one of the most successful States in implementing several ICT products and citizen centric services. The 'Technology Update' section apprises you on Hyper-V with Failover Clustering and the WebCon eLearning Services of NIC.

Many of the projects and products of NIC bagged popular awards during the recently held ICT events. The 'Accolades' section showcases awards conferring such as Smart City Awards 2015, CSI Nihilent e-Governance Award 2015 and Digital Transformational Leadership 2015.

Let me know your feedback on how the content and presentation of INFORMATICS can be further improved.

Wish you a very happy and prosperous New Year 2016.

NEETA VERMA

Please send your input/ contribution/ feedback to Informatics State Correspondents or directly to the address below:

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The Digital India programme has great potential of ensuring digital integration of Government and citizens through innovative ICT initiatives and services. It aspires at ensuring good governance to citizens by shoring up e-governance initiatives and digital infrastructure at various levels.

The focus of Digital India is on three key areas: Digital infrastructure as a public utility, Governance & Services on demand and Digital empowerment of citizens. It seeks to leverage broadband highways, universal access to mobile connectivity, public internet access, electronic delivery of services, information for all and IT for jobs for the benefit of citizens.

A number of initiatives and projects have been launched under Digital India namely; Digital Locker, MyGov- the citizen collaboration platform, Swachh Bharat Mission (SBM) Mobile app, eSign framework, Online Registration System (ORS), National Scholarships Portal, eHospital etc. All these projects have become quite popular and NIC has contributed to these projects, in one way or other.

With the advancement of technology and NIC being the premier ICT organization of the government, the expectation and demand for its services is ever increasing. Therefore by translating challenges into opportunities, we should strive to accelerate the efforts to offer innovative solutions in ICT to augment better governance.

Many new promising developments through digital technologies are underway. Together, we need to improve and strengthen our capabilities and bring innovative breakthroughs in ICT development in the country.

I wish you all a very happy and prosperous new year 2016.

- J.S. Deepak

CONTENTS

GOOD GOVERNANCE WEEK CELEBRATION 2015

One of the key enablers of a country's growth and prosperity is good governance. Progressive yet focussed efforts of a government to strive for excellence in administration, efficiency in providing public services with the optimal utilization of public money and inclusive participation of citizens in government are critical to achieve good governance. The Indian government has always been proactive to take necessary steps and derive policies for adopting various emerging ICT tools & technologies to realize good governance.

A weeklong celebration of Good Governance Week 2015 concluded with a grand event held at Habitat Centre, New Delhi on the 28th of December. Every year, the nation observes Good Governance Day on 25th December. The celebration this year, the theme for which was "Digital India for Good Governance", took place gracefully with enthusiasm and vigour.

The Hon'ble Minister of Communications & Information Technology, Shri Ravi Shankar Prasad inaugurated the celebration event by lighting a traditional lamp in the presence of eminent dignitaries from government. Shri J.S. Deepak (Secretary, Deity), Smt. Kaveri Banerjee (Secretary, DoP), Shri Peeyush Agarwal (Member Technology, DoT), Ms. Caralyn Khongwar Deshmukh (CEO & President, NEGD), Shri A.B. Pandey (Director General, UIDAI) and Shri Ajay

Kumar (Addl. Secretary, DeitY and DG, NIC) were the distinguished dignitaries on the stage of inaugural session. Senior officials of various departments of the government including Department of Electronics and Information Technology (DeitY), Department of Telecommunications (DoT), Department of Posts (DoP) and other delegates from related agencies were among the fully packed audience to grace the occasion.

Speech of the dignitaries highlighted various efforts and effectiveness of important initiatives of the government that have made transformational changes in services delivery and life of citizens. Some of the prominent initiatives were MyGov, Jeevan Pramaan, Digital Literacy, CSC, Aadhaar enabled Biometric Attendance System, e-Commerce, e- Transaction, Electronic Manufacturing, Telemedicine, Bharat Net and e-Education. During the event, a number of novel initiatives and schemes were also inaugurated along with launching of the monthly newsletter on Digital India. Screening of films on realisation of the Digital India movement was another highlight of the occasion.

The Hon'ble Minister, aiming to boost the country's rural post office system has handed over the first lot of solar powered PoS (Point of Sales) devices to 6 branch postmasters of 3 pilot circles of Uttar Pradesh, Bihar and Rajasthan. This initiative is to facilitate postal and financial transactions in rural branch post offices powered by India Post Data Centre. The Hon'ble Minister also awarded tactile graphic enabled book on Maths to a visually impaired student, symbolising the need for better education to differently abled citizens.

During the inaugural speech, Hon'ble Minister emphasized the pledge of Government to achieve various goals set for 'Digital India'. He said that the initiative would take a big leap to transform India into a truly 'digitally empowered society and knowledge economy'. He further accentuated that e-services should reach more people at the earliest and sought cooperation from State Governments, Industry and Academia for quick achievement of the goals, which would bridge the gap between 'haves' and the 'have-nots'.

Shri J.S. Deepak highlighted the accomplishments and advancements in the country through inception of ICT in governance. He mentioned that while it took us 20 years to get 1st 100 million internet connections, it took only 3 years for 2nd 100 million connections and just 18 months for 3rd

100th million connections. On his note, Shri Ajay Kumar reiterated the Hon'ble Prime Minister's 'P2G2 mantra' in which P2 means 'Pro People' and G2 stands for 'Good Governance'. He spoke on the efforts of DeitY towards achieving Digital India.

KEY PROJECTS LAUNCHED

23 new key projects were launched during the event, which were under four categories:- Digital Infrastructure, Digital Services, Digital Empowerment and Industry Promotion. Following were the projects/initiatives launched under each category.

DIGITAL INFRASTRUCTURE

- Public Wi-Fi Hotspots at Har Ki Pauri, Haridwar and Dargah Sharif, Ajmer
- One million connections in NGN network, Voice, Data & Multimedia
- National Centre of Geo-informatics for the use of GIs in GOI
- NIC's 4th National Data Centre at Bhubaneswar
- Initiating empanelment for private Cloud service providers for e-Governance
- 251st ATM Post Office at Gole Dak Khana, New Delhi

DIGITAL SERVICES

- Government Payment Portal enabling 100% e-Payment across the country
- Mobile App for Digital Locker account holders
- Transfer of Text to Speech technology available in 9 Indian languages developed by a consortium of 12 institutes led by IIT Chennai
- Installation of solar panels to enable rural post office as multi- service delivery centres and post terminals
- 12000th Post Office to offer Core Banking Solution
- Pan India Free Incoming Roaming Facility for MTNL and BSNL customers. Free roaming for all new/existing prepaid and post-paid customers' inkling mobile number portability customers.

DIGITAL EMPOWERMENT

- Special Manpower Development Program - Chips to System Design

Chhattisgarh receives the best performing State Award

Himachal Pradesh receives the 2nd best performing State Award

Meghalaya receives the 3rd best performing State Award

"A new world is being created. This world demand's good governance. This world demands its delivery! The quest for good governance is taking shape by its own force and it is a primary responsibility to ensure delivery of that"

RAVI SHANKAR PRASAD
MINISTER OF COMMUNICATIONS & INFORMATION TECHNOLOGY, GOI

"Good Governance is almost like Oxygen. While it is there, it makes you feel good, but you notice only when it disappears. Digital governance has to be nurtured and taken forward slowly in steps and pushed all the time"

JS DEEPAK
SECRETARY, DEITY

"Post Office has embarked upon a transformational journey, one that will surely assure transformation of public services delivery and access. This would further make post offices to be the flag bearers of e-governance and good governance in the country"

KAVERY BANERJEE
SECRETARY, DOP

- Olabs: Virtual laboratory for class IX-XII being rolled out at all CBSE Schools in the country
- Information Security Education Awareness Phase II for creating Capacity & Awareness for 1.14 lakh persons through 45 participating institutions
- Digital India e-Newsletter: Monthly electronic newsletter from DeitY starting December 2015

INDUSTRY PROMOTION

- All India BPO Scheme, creating 48,300 BPO seats in Tier II and Tier III
- Dedicating first BPO centre under North East BPO scheme at Guwahati and 8 new STPI centres in Bihar, Odisha & Uttar Pradesh
- Maths tactile books indigenously developed by IIT Delhi
- Digitally programmable hearing aid indigenously developed by CDAC, Thiruvananthapuram

AWARDING CEREMONY

The Hon'ble Minister, Shri Ravi Shankar Prasad awarded 3 outperforming States for their achievements in the Digital India programme. Chhattisgarh, Himachal Pradesh and Meghalaya were the States which stood first, second and third positions respectively. 77 Districts across 29 States/ UTs were also conferred with certificate of appreciation for being the best performing Districts.

The event concluded with a vote of thanks by Ms. Caralyn K Deshmukh, President & CEO, NeGD. The celebration was webcasted live by NIC for nation-wide viewership and on-demand video of the complete event is available at NIC's Webcast Portal (http://webcast.gov.in).

- BY MOHAN DAS VISWAM

"This year, we have adopted progressive measures to open up not only business opportunities, but also efficient use of spectrum resources. Guidelines for spectrum sharing, trading & liberalization have been issued"

PIYUSH AGARWAL
MEMBER-TECHNOLOGY, DOT

"Digitization is an answer to good governance. In a big country of ours, I think we cannot stop till we have joined every single citizen with Digital Technology. It is our focus and our efforts would be to enable that the e- services reach one and all"

AJAY KUMAR
ADDL. SECRETARY, DEITY & DG, NIC

"Our efforts should surely usher in a digital India where there would be no digital divide, where equal opportunities would be available for all citizens and where government services would be available at finger tips of citizens"

CARALYN K DESHMUKH
CEO & PRESIDENT, NEGD

Hon'ble Minister and other dignitaries with branch postmasters of 3 pilot circles of Uttar Pradesh, Bihar and Rajasthan displaying solar powered PoS devices received.

Online GIS Monitoring System
for Sericulture Development in Manipur

The online GIS monitoring system for sericulture development in Manipur is a solution for monitoring the progress of sericulture plantation using GIS, Satellite Imageries, Geo-tagged photographs and Vegetation Data. The implementation of the system in the State has helped the Sericulture Department to monitor the farms/units spread across the State, which includes production in the far-flung areas even without physical visit to the sites.

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Geographical Information Systems (GIS) are designed to capture, store, structure, analyse, manage and present all types of spatial or geographical data. Such systems have advanced immensely over the recent years and have become integral to various ICT-based solutions for development activities.

GIS has evolved as an essential system to simplify the various intricate activities of Sericulture. Manipur's Sericulture is one such complex area for which the potential of GIS was identified for application. Considering various parameters of the scheme, NIC took up the task of developing a GIS-based Interactive Application for monitoring the progress of host plants, cocoon production, fund flow, beneficiary management, etc.

The GIS based Interactive Application developed by NIC is a solution for monitoring the progress of sericulture plantation by using GIS, Satellite Imagery, Geo-tagged Photographs and Vegetation Data. With the implementation of this system, the Sericulture Department of the State is now able to easily monitor the farms/units scattered all over the State, including production in far flung areas without physical visit to the sites. The Department of Sericulture of Manipur aims to increase sericulture production with the use of ICT-based solutions by implementing various projects and schemes funded by the Central Government and the State of Manipur.

DEVELOPMENT OF THE SOFTWARE

Developed with Open source technologies and standards using PHP 5.4, the online application has a back end database PostgreSQL 9.1 with PostGIS ERDAS Apollo Server as map server. Open layer and Google earth API libraries are used for rendering the satellite images by web browsers. For uploading geo-tagged photographs, Android-based Smartphones having GPS and GLONASS positioning systems are used. Boundary coor-

Hon'ble Chief Minister, Shri Okram Ibobi Singh inaugurating the online GIS monitoring system

Screenshot of GIS based Interactive application

Network of Online GIS monitoring System

dinates of Units/farms are collected with GPS devices. The application (http://msmonitoring.nic.in) is hosted at the NIC Manipur Mini Data Centre, Imphal.

FEATURES OF THE SYSTEM

Satellite Data for Progress Monitoring of Plantation

GIS, GPS, Smartphones and Remote Sensing technologies are used for monitoring the progress of mulberry/host tree plantation. The plantation-monitoring module uses geo-tagged photographs and data collected from free or paid satellite sensors and images. Vegetation data from the satellite sensors are processed and uploaded to the GIS Server installed at NIC Manipur Data Centre. The system shows the plantation progress for a given timeline and enables the department to take appropriate corrective measures without visiting the actual site.

Geo-Tagged Photo

A smart phone application has been developed for geo-tagging and time stamping each photograph. Smart phones are checked to identify whether it is inside the boundary or not. Once it is confirmed, photograph can be taken and uploaded to the portal. All these activities are handled by using an android-based App called 'SeriManipur'.

Co-Ordinates of Farm Area

The system has been designed using the co-ordinates of the plot for verifying it through satellite image. The farm/unit profile along with boundary co-ordinates of at least four points is captured in the system using hand-held GPS devices to earmark the farm area. Beneficiary farmer profiles of each farm/unit are also entered in the system. Boundary co-ordinates are used for taking Geo-tagged photo, plantation monitoring, etc.

Fund Flow Management

The system is also designed for scheme-wise capturing of funds flow. Receipts and payments of money are also monitored using the system.

Production Management

The system has provisions to upload quarterly Production Data of each farm, which are captured to monitor progress of individual rearing farms.

MANAGEMENT INFORMATION SYSTEM

Satellite Image

The system generates reports with satellite images for a particular plot, providing a fair idea of whether the plantation is on-going or not. Such reports are extremely useful for the plots, which are difficult to visit.

Historical Time Slider

System generates Historical Time Slider Reports showing different stages of plantation growth. It can show 5-10 slides per report. Number of slides can be reduced or increased depending upon the need of the user department.

PRODUCTION REPORT

The system allows farmers/District Data Managers to upload data of Cocoon production periodically which enables recurrent generation of production reports.

CONCLUSION

The MIS is developed using Google Map data. Further, it is proposed to utilize data from NRSC, Digital Globe, Bhuvan, Vito, etc. It is also planned to utilize Vegetation Data for marking the distinction between host plant and other unwanted plants. The same software can further be explored for monitoring other schemes such as construction of roads and schools especially of India's North-East region.

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National eDistrict Portal

An Initiative under eDistrict Mission Mode Project

National eDistrict Portal provides a real time view of the State-and category wise eDistrict services available to citizen such as Issue of Certificates, Social Welfare Schemes, Revenue Court, Ration Card, Grievance redress, RTI services and also various optional services.

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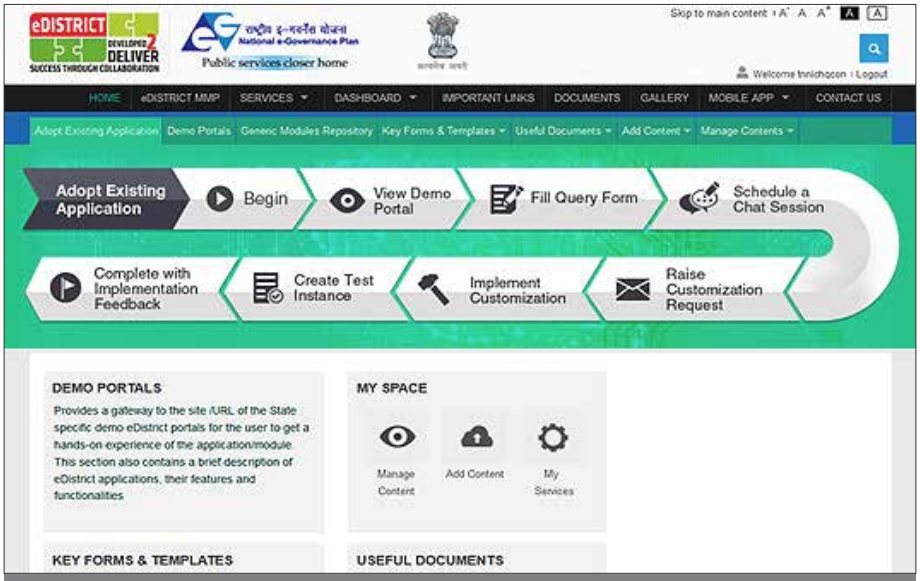
eDistrict is one of the 31 Mission Mode Projects (MMPs) under National e-Governance Plan of Indian government. Department of Electronics and Information Technology (DeitY) is the nodal Department for e-District project, which is being implemented by State Governments through their designated agencies. The MMPs aims at electronic delivery of identified high volume citizen centric services at district and sub-district level through automation of workflow, backend computerization and data digitization across participating departments.

Under the project, it was envisaged to have a common platform to facilitate content creation, monitoring and interaction between all states involved in eDistrict MMP. Thus the National eDistrict Portal [http://edistrict.gov.in] was designed and developed by NIC. The portal enables better coordination among States to ensure faster implementation of eDistrict MMP. The Portal is also a knowledge repository and single point of reference for all eDistrict MMP related progress data, information, circulars, guidelines, RFPs, demo URLs, applications etc.

HIGHLIGHTS

- A gateway to the Demo site/URL of existing eDistrict Modules /Applications for the other states to have hands-on experience
- A Repository of generic Modules/ Applications related to e-district MMP which can be used by other State units



Web page of National eDistrict Portal

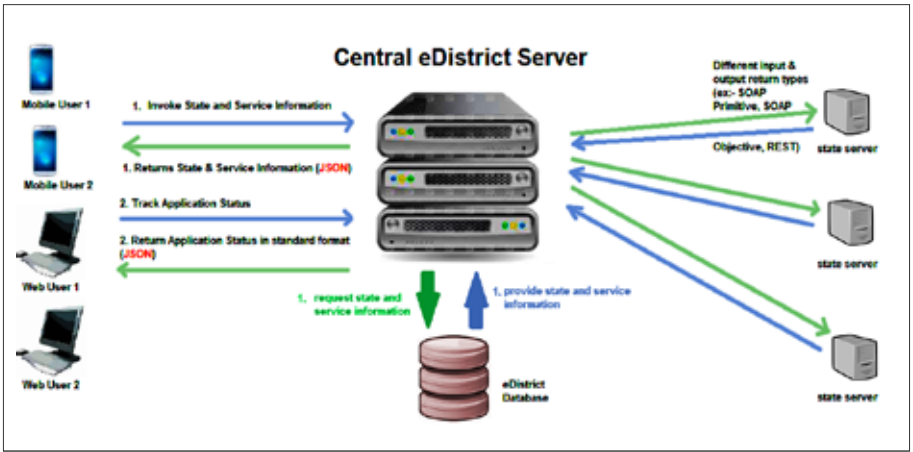
- Model MoUs for NIC's role as Application Development Agency and System Integrator
- A medium for States to connect with each other for sharing artefacts
- Facility for uploading/updating the best practices followed by various States with reference to eDistrict services
- Collection of FAQs, case studies and circulars related to eDistrict MMP
- A forum to discuss common issues with respect to eDistrict

The Portal has an online tool for monitoring & tracking project implementation. Besides, the physical and financial progress of eDistrict MMP can be viewed at State level. It has a real-time dashboard summarizing the category coverage of the eDistrict services being offered by various States and the total number of services in each State. The portal facilitates State-wise status tracking of services through application number and makes it available for citizens at a single click by providing the application number.

Along with other optional services, following are the mandatory service categories: **Issue of Certificates, Social Welfare Schemes, Revenue Court, Ration Cards, Redressing of Grievance & RTI service**.

"NATIONAL E-DISTRICT SERVICE TRACKER"- A CENTRALIZED MOBILE APP FOR STATUS TRACKING

For providing status-tracking facility to citizens through a single interface for all States, an android based mobile app called "National eDistrict Service Tracker" was developed which is available on Google App Store and Mobile App Store of DeitY



eDistrict System Architecture

FEATURES OF "NATIONAL EDISTRICT SERVICE TRACKER"

- Provides State-wise/Category-wise listing of services available in all the States under eDistrict MMP.
- To track status of the application for services submitted by a citizen in his local district office of any state running eDistrict MMP services by providing his/her unique registration number.

TECHNOLOGY

Centralized eDistrict Server receives requests from multiple users through devices such as mobiles, tablets & desktop computers. The server has all the functional software components to handle the requests, accessible via REST APIs and all the meta information of State servers such as web service URLs written in REST or SOAP and return type format XML or JSON. All data processing are performed at the centralized eDistrict server.

List of States and services information is computed on Centralized eDistrict server and the response is returned to the device in JSON. Service information is captured through State servers using web services. The centralized eDistrict Server sends the application status requests to the relevant State eDistrict Servers. Based on application number/registration number provided by each user, State servers process requests and return the results to the Centralized eDistrict Server in different formats such as SOAP primitive, SOAP object and REST. Centralized eDistrict Server processes the data coming from State servers and then sends back response to device in JSON. Internally, the device handles JSON and then displays the data in a user-friendly manner.

IMPLEMENTATION

18 States running eDistrict MMP services are integrated with the centralized Mobile app – "National eDistrict Service Tracker" for providing Status Tracking Services. It has been planned to make the mobile App more generic and currently the cross platform development is also in progress.

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Integrated Online Hotels Reservation System - Simplifying Himachal's Tourism Services

The new Integrated Online Hotels Reservation System (iOHRS) developed by NIC, Himachal Pradesh is a standard solution to make the best use of Internet for providing improved services to tourists of Himachal Pradesh. The iOHRS has become an important catalyst to increase in business of the Himachal Pradesh Tourism Development Corporation.

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Every year, tourists from all over the world visit Himachal Pradesh. Tourism plays an important role in the economic growth of the State. Himachal Pradesh Tourism Development Corporation (HPTDC), which provides quality tourism infrastructure to the State, runs a chain of 57 Hotels, number of restaurants and facilities for adventure sports. The Corporation has also its own fleet of luxury buses.

HPTDC has been leveraging upon the benefits of Internet for room reservations of its hotels for the past 14 years with the use of a web-based Hotels Reservation System developed by NIC, HP. To maximize its potential to reach customers using all possible channels, including popular online travel portals and to take advantage of the evolved Industry Standards, it was decided to develop an Integrated Online Hotels Reservation System (iOHRS) afresh along with a mobile App for easy access of tourism related information.

IOHRS SOFTWARE

The Integrated OHRS is a web-based application which provides online availability status of accommodations and instant online reservation facility to Tourists through the HPTDC website, major travel portals and Mobile Application. iOHRS facilitates online payments, cancellations, immediate confirmation of bookings through SMS/e-mail, enabling/disabling payment gateways, customizable cancellation policy, discount /special offer, easy check- in at HPTDC hotels etc.

The HPTDC Mobile App (available on Google Play Store) provides all information related to HPTDC, as available at http://hptdc.nic.in in offline mode. The App covers tourist places, hotels, adventure sports, conference facilities, roadmap of Himachal, photo gallery, contact information of

"The new Integrated Online Hotels Reservation System has enabled HPTDC to extend its reach to the prospective customers/ tourists visiting the State by tapping all probable mediums, which has increased the business of the Corporation. The analytical reports/charts have helped us to offer better options to tourists and take informed decisions. It's a complete Tourism solution by NIC Himachal!"

MOHAN CHAUHAN, IAS
Managing Director, HPTDC

booking offices, option for booking Hotels and Buses. Information related to HPTDC hotels is available, including photos, room numbers, tariff and availability. Internet is required only for fetching room availability data and booking information.

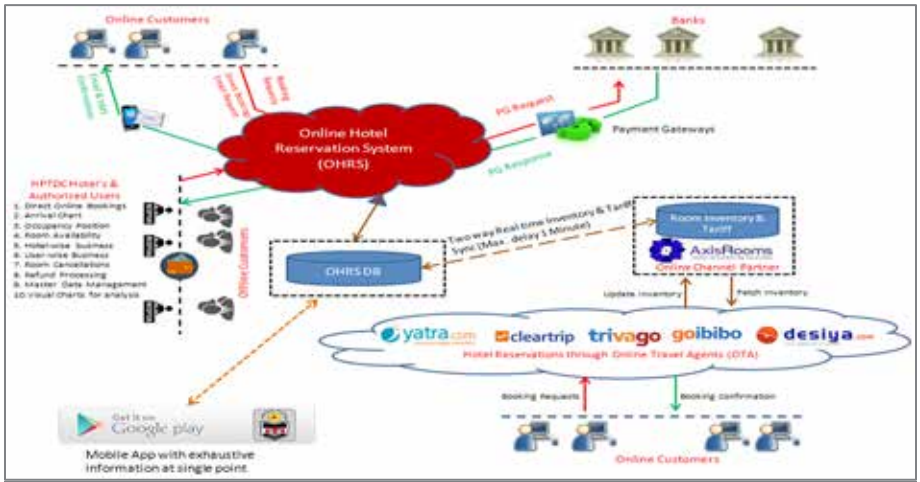
The system's simple and easy interface enables HPTDC officials to extract booking information quickly. The special feature called 'Take Me There' takes user to the selected hotel/place based on mobile GPS feature and Google Maps/Map My India Apps in Online/Offline modes.

http://hptdc.nic.in/ohrs (Reservation Page)

iOHRS Mobile Interface

KEY FEATURES

- Availability status, instant direct reservation, cancellation, blocking of accommodation
- Immediate confirmation of bookings/cancellations using SMS & eMail messages
- Quick refund against cancellation
- Integrated with multiple Payment Gateways
- Integrated with all popular travel portals such as Cleartrip, Yatra, Travelguru and goIbibo for real-time confirmed online booking through their portals
- Modules to manage Master Data such as popular destinations, hotels, type of accommodations, category/ period-wise room tariff, promotional offers, application of promotional offers and user/role management
- Summary and detailed business reports such as room/nights booked, period-wise business comparison, hotel/user-wise business, user-wise booking and analytical graphical charts for hotels, booking offices and its management
- Automatic real-time two way inventory sync with travel portals through channel partner (Axis Rooms) using WCF services



iOHRS System Architecture

TECHNOLOGY

Operating System: Windows

Technology Stack: ASP.NET 4.5 web-forms, WCF, CSS3, fusion Charts, SQL Server Reporting Services

Database: MS SQL Server 2012

The application has been hosted at the NIC Cloud of Delhi, which is designed to manage steady traffic, thoroughly tested and audited for cyber security. iOHRS helps in enhancing business and revenue of the Corporation. This software product can be replicated and extended for usage by similar State tourism departments.

The Integrated OHRS has been awarded the Skoch Order-of-Merit in 2015 and has been shortlisted for the National e-Gov Awards 2015.

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Samagra Kutumba Survey

Household Information Capturing System for Telangana Government

Samagra Kutumba Survey was conducted in all the districts of Telangana State ensuring that each household is surveyed once at one place. It was also aimed to have a high degree of accuracy in the data & statistics to enable the government to make appropriate strategic planning for citizen centric services

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The task of design and development of data input system and necessary software for capturing the citizen data along with preparation of MIS reports of Samagra Kutumba Survey (SKS) for Telangana State was bestowed to National Informatics Centre, Telangana State Centre (NIC-TSC), Hyderabad. The NIC, TSC took up this extensive task and then successfully executed in a stipulated short period. This challenging activity also involved software management, data warehousing, database management and preparation of MIS reports. The highlight is that using this system, the data of 3.60 Crore citizens got captured in just 20 days.

TECHNOLOGY

The system for Samagra Kutumba Survey was developed using the technologies mentioned below:

Application: HTML5, Struts Framework and JSON

Database: MS- SQL Server 2012

Web Server: Apache Tomcat 7.0

CISCO application load balancing with multiple application servers installed on TOM CAT into 8 VMWare servers of Linux, databases maintained in the active clusters.

THE PROCESS

The concept of Fixed Public IP access for the software was presented to all District Collectors for collating the lists of IP-address of computers, data entry operators and data entry stations. The collated list was then provided to the District Informatics Officer for generation of user ID and password for each computer operator who carry out data entry. IP address of the computers / data entry stations were captured during the data entry process and the list was submitted to the District Informatics officer, who only has the privilege to access the link at the data entry website.

DATA COLLECTION SHEET

SIO & DDG, NIC Telangana State Centre has conceptualized and designed the data collection sheet and explained the data entry fields to the State Government authorities during the brain storming session on the survey. The format was finalized after various meetings with the State Government authorities. A unique 9 digit alphanumeric SKS number concept was derived, in which the prefixed first two digits represent respective District code. The SKS number has been taken as the primary key for all transactions of the application.

BACK END PROCESS

- Data capturing of 3.6 Crore family members and 105 indicators
- Cleaning of Data
- Age and Name verification with Aadhaar data
- Processing of data for correction

Hon'ble Chief Minister of Telangana participating the SKSurvey along with family members

- Generation of PDFs for verification
- Processing of data for various reports
- Analysis of data for various beneficiary schemes
- Integration of data for Pension and Food Security processing
- Replication of Data
- Integration of data with various line departments' Applications

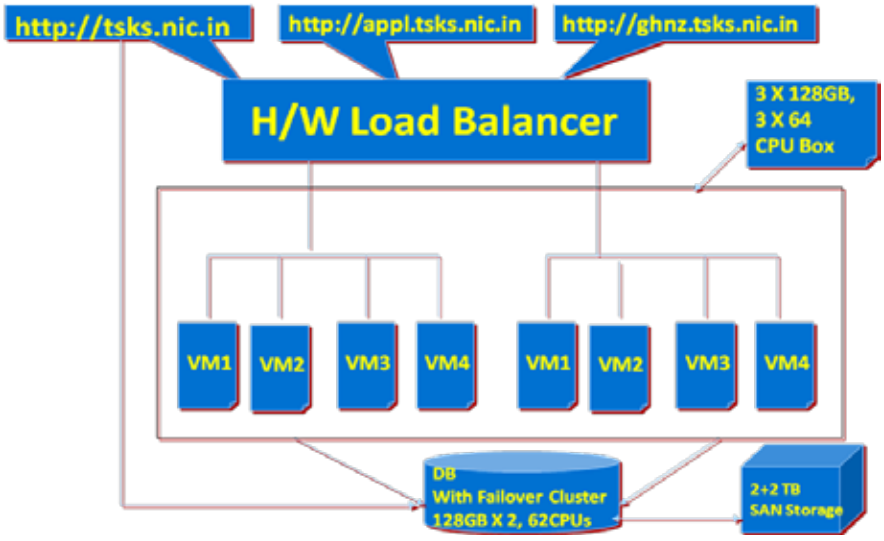
FRONT END PROCESS

- Generation of sanction letters for beneficiaries

USER MANAGEMENT

Identification of users:

The task involved identifying the end users (stake holders) of the SKS data entry and report level users. The main administration module for creation of users and assigning roles and privileges were given to an officer of NIC Telangana State centre. NIC



TSKS Server Architecture

District Informatics officers were given user IDs by the State official and assigned to be the administrators for user ID generation for Data Entry Operators and Mandal Revenue Officers. At the state level, the Principal Secretary (PR & RD) and CEO (SERP) & Commissioner and Spl. Commissioner (GHMC) were the identified users to view various statistical, analytical and MIS reports.

Component II – ePOS (http://epos.ap.gov.in/ePos)

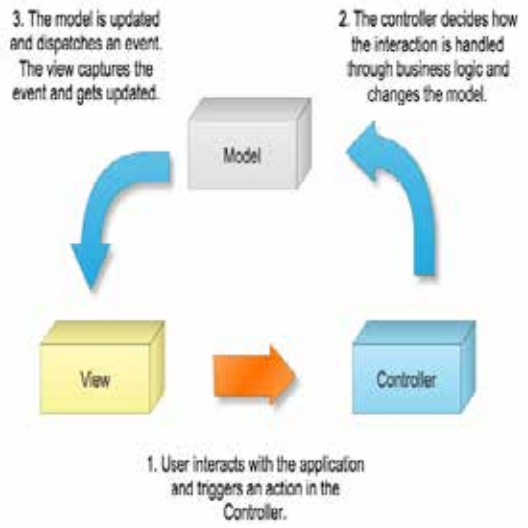
The challenge in this task was to generate user IDs for the data entry operators at various places in the Districts without knowing their identity. After a series of brain storming sessions, a unique approach was derived to generate user ID for users at various levels.

- The ID consisted of a total of 8 characters; District Code + Mandal Code + three digit running serial numbers. Based on this criterion, in a Mandal, a maximum of 9999 data entry operator IDs could be generated
- It was made mandatory to change the original password of each user on first login, during which all the user details were captured
- User levels were identified based on the three parts in the user Id along with a unique level code

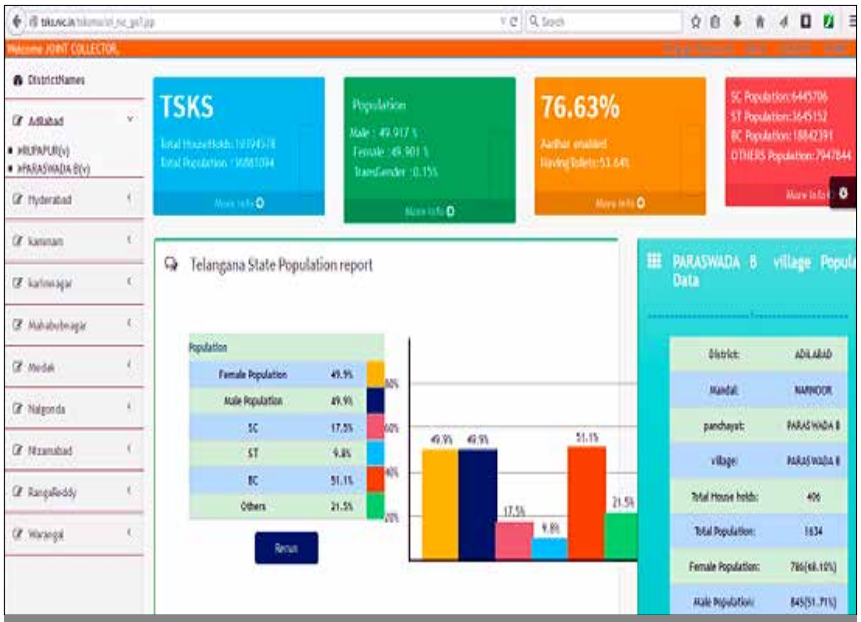
The above user Id formation has several advantages. One advantage is that based on the login, location details can be captured in each Form

Security & Session Management:

The password was encrypted by salted Sha1 algorithm. All the users logged in were maintained in unique session ID individually.



MVC Architecture – Struts Framework



MIS Dashboard of TSKS showing Telangana State Population Report

User ID intimation:

User ID's generated by DIO's of NIC were communicated in a sealed cover to District Administration for onward transmission to end-users.

User locking mechanism:

User Id will be locked after three consecutive failed login attempts. The privileges for resetting password for locked users were given to NIC DIO's (MRO's and DEO's). Remaining password-resetting privileges were with state NIC officer.

Roles & Privileges:

Data Entry Operator: SKS survey format data entry

Mandal Revenue Officer: Statistical Reports

District Collectors: MIS & Statistical Reports

State Level Officers: Analytical, GIS, MIS and Statistics Reports

MIS REPORTS

- Developed MIS report formats as communicated by the Government of Telangana
- The Telangana Government conducted workshops along with eminent personalities and NGOs for arriving at criteria of exclusion, inclusion and deprivation
- A Portal was Developed for accessing the reports such as Exception, Demographic, Analytical, Housing, Pensioners, Food Security Cards, Socio-Economic, Vulnerable and GIS

UNIQUE, INNOVATIVE AND REUSABLE TECHNOLOGIES

- Usage of JSON (JavaScript Object Notation) for storing and exchange of data
- All the Masters converted to JSON object to reduce the database hits
- **Pouch DB:** Enables to store the data locally when Internet connectivity goes offline and the same be synchronized to main database in the encoded JSON Format whenever connectivity is online
- **Fixed Public IP concept:** Allows only authorized users to access the application and avoid unnecessary global Internet traffic

UNIQUE HIGHLIGHTS

- For the first time in India, such a combination of technologies used with identified parameters for capturing information on 3.68 Crore citizens
- The entire data entry got completed in a record time of 14 days
- The combination of the system and technology can be a role model for many other citizen centric applications

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West Bengal State Data Centre

Indispensible Facilitation with a Common Centralized System

West Bengal State Data Centre is constituted of a world class Tier II data centre (having redundant capacity components and distribution path serving business continuity) as per TIA 942 standards with a guaranteed service level of 99.749%. The data centre ensures safe, secure, constantly monitored and uninterrupted services with highly available power supply along with efficient cooling systems. The West Bengal State Data Centre has achieved both ISO 27K: 2013 and ISO 20K: 2011 Standards.

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National e-Governance Plan (NeGP) envisages setting up of core ICT infrastructure such as Wide Area Network and Data Centres at the States which would facilitate centralized computing and support for online services delivery to citizens, business and government.

West Bengal State Data Centre (WBSDC) was established primarily to provide services to the State Government, Line Departments and Public Sector Units of West Bengal. It hosts many critical mission projects related Commercial Tax, Crime and Criminal Tracking Network & Systems (CCTNS), Land Records, Excise, Registration, IFMS etc. The data centre facilitates hosting and management of various software applications online with the use of a common centralized system.

ABOUT WBSDC

WBSDC has been built up on a floor area of about 400 Sq. m and having provision to extend up to 120 Sq. m more. SWAN and WBSDC are composed of the latest state-of-art technology and infrastructure with a robust architecture containing multilevel redundancies, enhanced security system with detection & prevention of advanced perceived threats, distributed denial of services and a three-tier uninterrupted power supply system. Being a world class Tier II data centre (having redundant capacity components and distribution path serving business continuity) as per TIA 942 standards with a guaranteed service level of 99.749%, it is safe, secure, monitored and has a highly available power supply along with efficient cooling arrangements. The WBSDC has achieved both the ISO 27K: 2013 and ISO 20K: 2011 Standards. It has a centralized yet simplified management system and can accommodate several racks for network components and servers.

WBSDC is powered with a separate substation having two different sources of grid power supplies, supported with 3 diesel generator sets. An efficient building management system of the data centre with fire fighting arrangements, water leak detection system, biometrics for access control, alarms & surveillance, rodent repellent and public address system ensures safe and secure operation of the data centre, complying with the ISMS standards.

FEATURES OF WBSDC

The State Data Centre is fabricated with a full-bodied network infrastructure compliant of both the present generation Internet Protocol (IP v4) as well as next generation Internet Protocol (IP v6) using Dual-Stack deployment. This is equipped with multilevel security system including intrusion prevention, demilitarisation and two-level firewalling. WBSDC has a robust intranet backbone coupled with 2 different Upstream

Server Farm Area of West Begal State Data Centre

Internet Service Providers. The data centre is constituted of large number of servers to cater shared services over multiple OS platforms with virtualisation (Windows & Linux) and database management systems (Oracle, MSSQL etc.). The shared services also include power, storage spaces, local area network, tape library and abundant rack space to accommodate additional servers in the server farm.

Facility Management Services (FMS): FMS includes routine backup, continuous monitoring to secure servers, network devices, application and database services, immediate resolution of defects and incidents, which are part and parcel of the 24x7 operational infrastructures. A disaster recovery facility has been established at the data centre for replication of data at National Data Centre (NDC), Delhi. Departments can add required computing facility at NDC to maintain absolute business continuity with prevention of any data loss.

HOSTING AT WBSDC

For hosting applications at WBSDC, the models available for the line departments on the basis of complexity, criticality and volume of their applications are:

- Dedicated hosting
- Partially shared hosting
- Fully shared hosting

The departments need to sign a Service Level Agreement (SLA) with DIT prior to hosting. Basic services (24x7) provided by WBSDC includes Power, Space, Cooling, Physical security, BMS, Application hosting (Collocated, Shared & Cloud), shared infrastructure such as Network, Server, Storage & Tape library, Staging, VPN, Antivirus, Monitoring & Management.

WBSDC's stakeholders are DeitY, Govt. of India, Composite Team State Implementing Agency, SDC Consultant, Data Centre Operator, Third Party Auditor and STQC. Time to time, various policies have been derived by the Composite Team and various procedures are adopted accordingly for smoother and efficient operation of SDC. Departments of hosting applications at WBSDC are required to get a prior approval from DIT&E, GoWB. The VA/PT of Operating System and Application Security audit is mandatory prior to Go-Live.

WBSDC's Server Farm Area is mostly occupied. Currently about 40 Applications are hosted in WBSDC, among which 10 applications are in Cloud environment. The composite team has introduced services such as Online Service Desk, Active Directory, SSL, Customer Feedback and Attendance Monitoring System for DCO and various processes to streamline application hosting. At server farm area, the complete floor space has been utilized and expansion work has already been initiated.

ENHANCEMENTS

Storage has been augmented to 180 TB to meet the requirements of Line Departments. Storage based replication has been initiated already for some of the applications and the major applications have been computed at National Data centre (NDC) end. Cloud Computing System (CCS) is in place as an additional facility for applications that need dynamic resources. WBSDC is the process of enhancing CCS by adding disparate Departmental servers. Online Portal for CCS has been introduced for the Departments to avail facilities easily through a simple registration process. Security system has been strengthened with inclusion of Checkpoint firewall equipped with features like Anti-DDOS, Anti-Bot, Threat Emulation, Advanced persistent threat (APT) management etc.

WBSDC strides ahead as an indispensible part of West Bengal providing services (24x7) for several mission critical applications.

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KERALA

Soaring high with ICT Success Stories

NIC- Kerala has been instrumental in developing and implementing many significant and successful e-Gov projects for the Government of Kerala. It continues its stride of excellence by winning several prestigious awards and accolades from various eminent institutions at national and state levels.

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NIC Kerala State Centre has been actively involved in ICT based e-Governance solutions for Government of Kerala over the last 28 years. NIC Kerala has developed and implemented many significant and successful e-Gov applications. eDistrict for Certificate and eServices to citizens, TREND for Election Results Management, PRICE (PRICE – Project Information and Cost Estimation), RELIS (Revenue Land Information System) for Record of Rights, Integrated Financial Management System, Open PEARL for web based property registration and eServices, E-Treasury for Government receipt management platform, Legislative Assembly Interpellation System (LAIS), REALCRAFT for registration and licensing of fishing vessels, SPARK for government HR management, CAPNIC, hsCAP and CAT-2016 for e-admissions and counseling, Coir Beneficiary Management System, e-DBT, GEMS for Gazetted Entitlement Management, eOffice, and IDEAS in Secretariat are some of the major e-Gov solutions and applications implemented in Government of Kerala. Integrated Financial Management System (IFMS), RRonline for Revenue Recovery System are the two emerging key e-Government ICT platforms being introduced. NIC Kerala also provides support for NKN services, Video Conferencing Services, Web and Email services and technical consultancy services to various Government Departments.

PRICE – PROJECT INFORMATION AND COST ESTIMATION

(http://price.kerala.gov.in)

Central Public Works Department (CPWD) of GoI releases revised version of Analysis of Rates and Schedule of Rates every year. CPWD has incorporated cost index for every States to get a normalized rate for preparing the estimates. PRICE is a workflow-based software developed by NIC-Kerala for the Public Works Department of Government of Kerala for preparation and approval of estimates along with its project proposal.

The dynamic generation of Data Analysis of Rates (DAR) as and when the DSoR changes along with the software's recalculation feature facilitates the department to prepare estimates with the latest DAR and convert the existing estimates to the latest DAR.

Implementation Status: PRICE was launched in January 2014. It has been made mandatory that all estimates shall be prepared, submitted and processed only through PRICE. Hence steps are afoot to induct PRICE in the Roads &Bridges wing of PWD and other engineering departments (Irrigation, Agriculture, Harbour Engineering, Ports, LSGD Rural & Urban). The department of Agriculture has implemented PRICE on 1stOctober2015.

The Ministry of Rural Development

PRICE team with Shri P.H Kurian, IT secretary, GoK and Ms. Pennamma, Chief Engineer (PWD) during the CSI-Valiant e-Governance Award function

(MRD) identified PRICE as the tool for cost estimates of works related to MGNREGA. The software has also been customized at MGNREGA Portal and has since been piloted in Kerala. MRD is planning for national rollout of this software.

Recent awards:

- CSI-Valiant e-Governance Special Jury Award at the event of CSI Golden Jubilee e-Governance Awards, Kerala (November, 2015)
- Award of appreciation at CSI Nihilent e-Governance Awards, 2014-2015

eDISTRICT KERALA

(https://edistrict.kerala.gov.in)

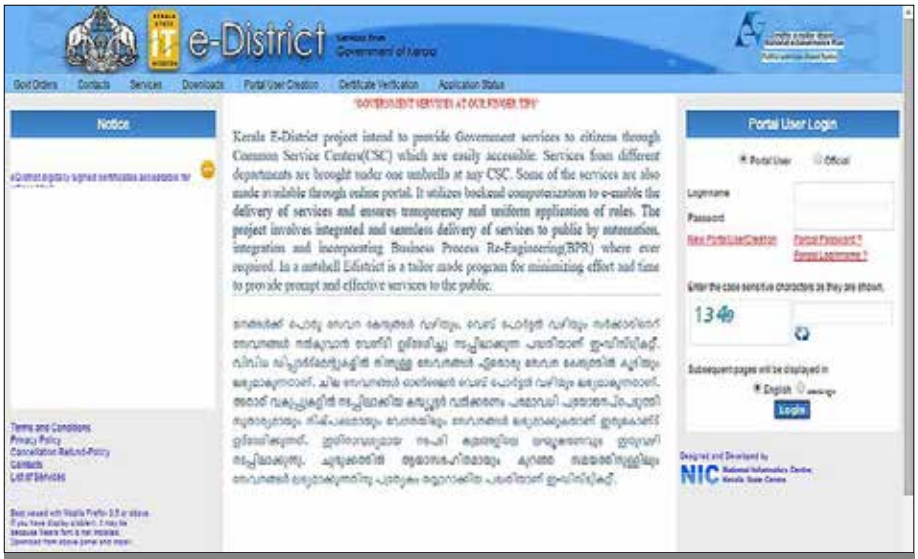
eDistrict Kerala is a Mission Mode Project (MMP) under NeGP, which aims to bring citizen services closer to home. Common Service Centres (CSC) and online portal are the points of contact for citizens to avail services provided by various departments. 40 services of different departments are implemented under the project which includes 24 Certificate services of the Revenue Department, Right to Information (RTI) services, Grievance submission and processing, Revenue court cases, Payment services like electricity bill, water bill, BSNL phone bills, University payments and e-Challan to police department.

Under this project, all Village Offices, Taluk Offices, RDO Office and Collectorates are connected on KSWAN / NICNET. More than 2400 Akshaya centres are designated as CSCs for services delivery. Under this project, 1.83 Crore applications for various certificates and delivered online (as on January 2016). All these applications are processed through a workflow built in to the system and the digitally signed certificates are issued through CSCs/ online portal.

Individuals can apply for citizen services at any CSC or through online portal and need not have to visit the government offices for availing these services. Thus the convenience of the citizens has improved much as more CSCs are in place than the number of offices. Applications can be filed at any of the CSCs irrespective of locations of related government offices and thus saving money and time. Since entrepreneurs run the CSCs and they work beyond office hours, citizens can avail the services after government office hours also. The project has been rolled out in all the districts of Kerala as on March 2013.

Recent award:

- Order of Merit Award in the 41st SKOCH summit 2015



Webpage of e-District Services, Kerala

TREND - TREND OF COUNTING BY STATE ELECTION COMMISSION, KERALA

(http://trend.kerala.gov.in)

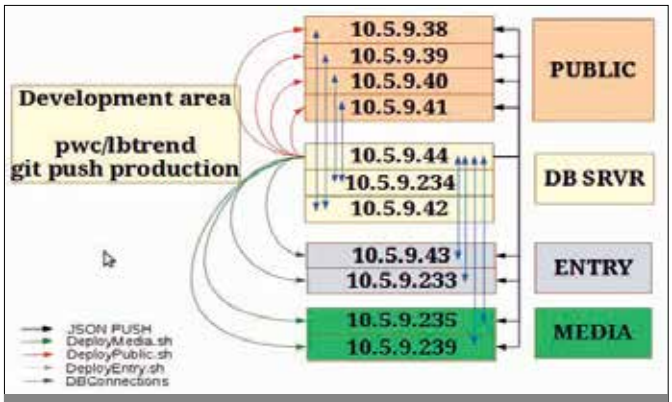
Kerala State Election Commission has entrusted NIC Kerala with the mammoth task of preparing Photo based electoral rolls, capturing of voter turnout data, counting data and swing of counts. TREND is open source technology based software developed by NIC to compute trends in vote counting of elections in real time. This has been facilitated through 'http://trend.kerala.gov.in', a portal developed by NIC.

In Kerala, TREND was successful in capturing the voters' turnout details and dissemination of results activity of all elections. Data of 3.6 Crore family members with 105 indicators has been used for the elections. Following are the elections for which TREND was successfully deployed:

- Kerala Assembly
- Kerala's Parliament Constituencies
- Election of Local Bodies of Kerala (Corporation Ward/ Municipality Ward/ Panchayat Ward/ District Panchayat Ward/ Block Panchayat Ward)

NIC has also developed and hosted web site http://trendentry.kerala.gov.infor collecting and verifying ward wise and polling station wise (tabular) details. The resultant data is then fed into the TREND system. The servers are configured in such a way that the data is instantly replicated to a separate set of servers, which disseminate results. Following are the TREND highlights:

- The system enabled the Election department to generate all required reports like A07, A08, Form 20 etc.
- The servers have registered around 4.75+ Crore unique views of actual data in a single day.
- The entire development, its deployment and production hosting is done on Open Source Technologies
- TREND was instrumental in declaring the election results in a record time.



TREND- Server details

Trend 2015 – Local Body Election 2015 Statistics

REVENUE LAND INFORMATION SYSTEM (RELIS)

ReLIS is a unique online system developed by NIC-Kerala to facilitate

Hon'ble CM, Shri Oommen Chandy inaugurating the State wide implementation of ReLIS (Record of Rights) in Kerala

ease of transaction of land (locally termed as 'Pokkuvaravu'). In ReLIS, a person who intends to sell his land in full or part, has to collect record of right (RoR) from the concerned Village Office and submit an online application to the Sub-Registrar Office through the CSC's (AKSHAYA). The application will be then made available to the sub-registrar Office electronically and after executing the transaction deed, the sub-registrar approves the concerned application of Transfer of Registry. The 'Pokkuvaravu' application will be available online to the concerned Village Office or to the Office of the Tahsildar depending upon the nature of transaction. The received applications for Transfer of Registry at Village Office are listed and after the appeal time, village officer can affect the Transfer of Registry by just approving the application.

ELECTRONIC BENEFIT TRANSFER (EBT)

Electronic Benefit Transfer (EBT) software developed by NIC facilitates beneficiary management, process flow and electronic transfer of amount to beneficiary's Bank/ Post Office Savings Account. Any Department can be plugged in to the system and configure their requirements. Beneficiary data is captured at single point or multiple points and even through Akshaya centres. Process flow can be designed in to the system for verification, Forward and Approval. Department can disburse the benefits at single point or at multiple points like District, Blocks etc.

The disbursement also can be set up while configuring the scheme and for this various modes of Disbursements available are NEFT, Post Office, PFMS, AEPS etc.

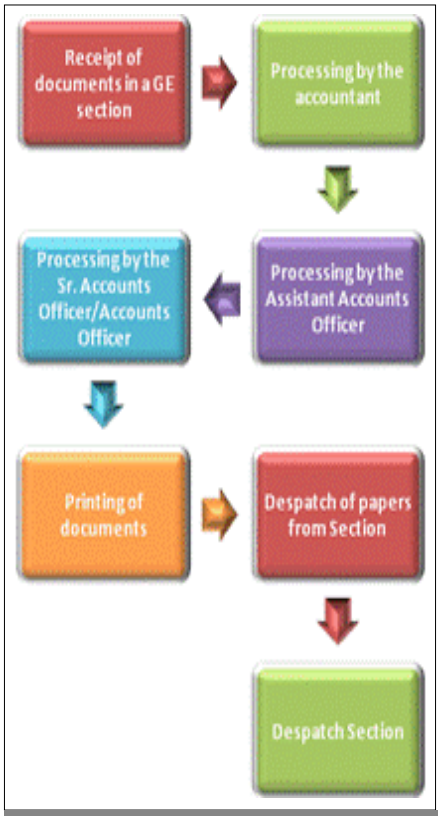
Webpage of Electronic Benefit Transfer (EBT)

The EBT portal is operational since three years now and is currently configured for around 143 Schemes of the Government of Kerala. The major users are the Agriculture department, Finance department, Rubber Board, Higher Education department, SC department and Institute of management in Government and Kerala Social Security Mission.

GAZETTED ENTITLEMENT MANAGEMENT SYSTEM (GEMS)

Office of the Accountants General (Accounts & Entitlements) authorizes gazetted entitlements (pay, leave salary and allowances admissible to a gazetted officer) of the officers of State Government. The entitlements are regulated on the basis of various Rules and Regulations made by the competent authority governing the conditions of service. Various events in the career of an officer such as Appointment, Promotion, (including grade and ratio promotion), Increment, Transfer, Suspension, Dismissal, Retirement, Leave, Deputation, etc. cause change in the pay and allowances of an officer and consequently the revision of pay and allowances is undertaken. This is authorized and its drawing is monitored. The office maintains database of all events and subsequent changes in the pay and allowances of each officer during his career.

GEMS is a web portal developed by NIC, Kerala to improve efficiency of Gazetted Entitlements. The Software



GEMS : Workflow

has three core modules for Pay, Leave and Pension. Pay module enables pay fixation and making entries in the system whereas, Leave module facilitates calculation of leave, leave salary, leave surrender pay, terminal surrender etc. Pension module facilitates reporting to pension wing, the essential details of officers who retire on superannuation.

Implementation Status:

- Successfully implemented at AG's Office, Trivandrum office in 2012
- Being taken up for implementation in Karnataka, Assam, Tamil Nadu, Manipur, Nagaland, Meghalaya, Bihar and Jharkhand
- CAG has recommended national rollout of eTreasury as it had been successfully operational at the AG's office since the last 3 years.

E-TREASURY

(https://etreasury.kerala.gov.in)

The Treasury Department, Government of Kerala, has decided to receive payments electronically in addition to the conventional modes of tax payment accepted by the government. eTreasury is a software successfully developed by NIC-Kerala for electronic payment of Kerala in which acceptance of on-line payment of Kerala State's taxes through the web portals of various banks has been facilitated. This does not have any implication on the existing procedures of the Department. To make ePayment of taxes, a taxpayer is required to have net-banking account with any of the banks listed at the site 'http://etreasury.kerala.gov.in'.

Recent award:

- 2015 CSI Valiant Runner-Up Award for best project

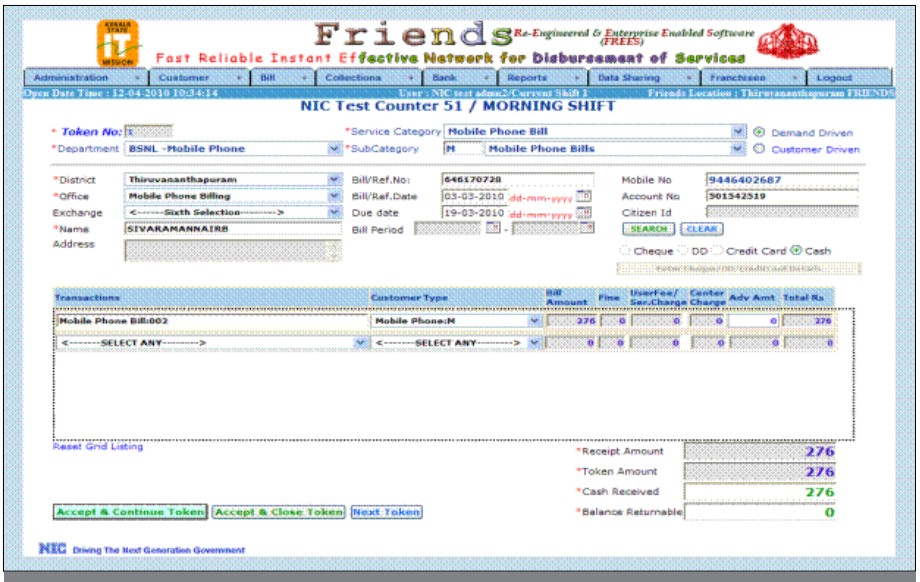
E-OFFICE

e-Office is a Mission Mode Project under the National e-Governance Programme (NeGP) of GoI. e-Office facilitates simplified, responsive, effective and transparent process of carrying out office procedures electronically in all government offices. The product has been standardised to make it reusable and customisable for replication across governments and local bodies. The e-Office is envisaged to usher in a single collaborative workspace for government.

NIC-Kerala facilitated implementation of e-Office at various Government offices such as the Secretariat, Collectorates and some of the Directorates. Implementation involves a systematic government process re-engineering, migration and a step-by-step conversion of files from physical to electronic files.

- CSI Nihilent e-Governance Award of Appreciation for e-Office project 2015
- SKOCH Summit Order of Merit Award 2015

Webpage of e-Treasury, Kerala



FREES : Common user interface for Collection

FRIENDS RE-ENGINEERED AND ENTERPRISE ENABLED SOFTWARE (FREES)

FREES is an enterprise enabled, anywhere-any payment system developed by National Informatics Centre, Kerala State Unit. This web-enabled system has replaced the old software in individual FRIENDS centres and helps the citizens to pay all the taxes and other dues at any FRIENDS centres. The counters are equipped to handle the bills/dues of Revenue, Motor vehicles, Civil supplies, Local bodies, Universities, KSEB, Kerala Water Authority and BSNL (land line, wireless and mobile). Using the FREES portal, the concerned departments can upload demand details (bill data) immediately after preparation of bills. Authorized users of the participating departments can download the collection details. Alternately, the participating departments can expose web-services in their servers to deliver demand details, which can be consumed by the collection centres as and when required. Facility is also available in the portal to update the collection details in the departmental server as and when the collection is made.

The system is flexible enough to add new departments and services to the system without modifying the software. Collections can be made in three modes: (1) demand driven mode, (bill data is pre-loaded into the system) (2) customer driven mode (Collections are taken as per the bill presented by the customer) and (3) web service driven mode (bill data is fetched online from the respective departmental server). At present, Kerala Water Authority, Kerala State Electricity Board, Motor vehicle department (Tax collection), Cultural Welfare department, Calicut University and Municipal Corporation (property tax) follow web service driven transactions. BSNL (land phone bills, Wireless and Mobile bills) follow demand driven whereas all other departments follow customer driven mode.

The FREES application and database are hosted at State Data Centre (SDC). Users connect with the central server through web browser and all reports generated (pdf) can be downloaded to local client.

FREES has been integrated with eDistrict application

Collection of Certificate Fee, payments for Akshaya & Portal, Reconciliation of Akshaya Advance and Portal Collection, Payment Gateway Settlement file creation and Payment Gateway Refund file creation are handled by FREES application.

Status

- FREES Rollout have been completed in all FRIENDS.
- Around 6188018 transactions have been made successfully and collected around Rs. 543 Crores over a period of five years through FREES.

REALCRAFT - REGISTRATION AND LICENSING OF FISHING CRAFTS

ReALCRAFT (http://www.fishcraft.nic.in) is a demand driven project envisaged to enhance coastal security with a system of identifying each fishing vessel by unique registration number. The ReALCRAFT Application is operational in 164 locations

ReALCRAFT Project Locations

having 5000 trained officials working in 9 states and 4 union-territories. The application has a database containing of details of about 3 lakh fishing vessels into one national database. It has helped coastal security agencies in uniquely identifying and monitoring the fishing vessels in the sea, keeping at bay any illegal, unregistered and unreported activities. Real Craft improves coastal security, fishermen security, and ensures benefits such as kerosene and petrol subsidy along with insurance to fishermen.

Beneficiaries of the project include fishing vessel owners, security agencies such as coast guard, navy, coastal police, fisheries department and related agencies of 9 coastal States & 4 UTs, Mercantile Marine Department, MPEDA, DGLL, Insurance agencies, State and Union Ministries.

The registration certificate has a barcode mechanism, which helps the security agencies to trace the history of fishing vessels. It provides an online facility where vessel owners can stay updated on the status of submitted applications. Recording of details of crewmembers venturing into sea for fishing will be integrated with this system soon. This facilitates to further strengthen the arms of costal security agencies.

Implementation details

- The ReALCRAFT Software successfully designed and piloted in Kerala. Gap Analysis was done to rollout software to all the 13 coastal States/UTs. Software has been successfully customized for national rolling out in 9 Coastal State and 4 UTs
- Carried out site inspections and provided technical guidance for site preparation to all 166 ReALCRAFT Centres in the country
- ICT infrastructure procured, deployed and commissioned at all ReALCRAFT centres in the country successfully. 166 ReALCRAFT centres are networked through MTNL/BSNL's Broadband
- Series of training and sensitization programmes organized for the fisheries department officials (around 4000 officials)
- ReALCRAFT Software has been successfully security audited as mandated by the Ministry of Home Affairs
- Ensures scalability, reliability and availability, security audited software has been deployed on secure dedicated servers at the NIC Internet Data Centre, Hyderabad (http://www.fishcraft.nic.in)
- Operational from 166 locations along the coastal line
- Around 3 lakhs vessels have been registered
- Around 800 users are accessing the system
- Stakeholders - Navy, Coast Guards, Marine Police, Fisheries Authorities, Ministry of Home Affairs, DRDO Labs associated with Coastal Security, DGLL etc.
- Legal issues - Marine Shipping Act 1988 modified
- Security agencies like Coast Guards, DGLL uses unique Registration Number in their National Automatic Identification System (NAIS) for Fishing Vessels.

Recent Awards:

- CSI Nihilent Award for Excellence 2015
- Order of merit award in the 41st SKOCH summit 2015

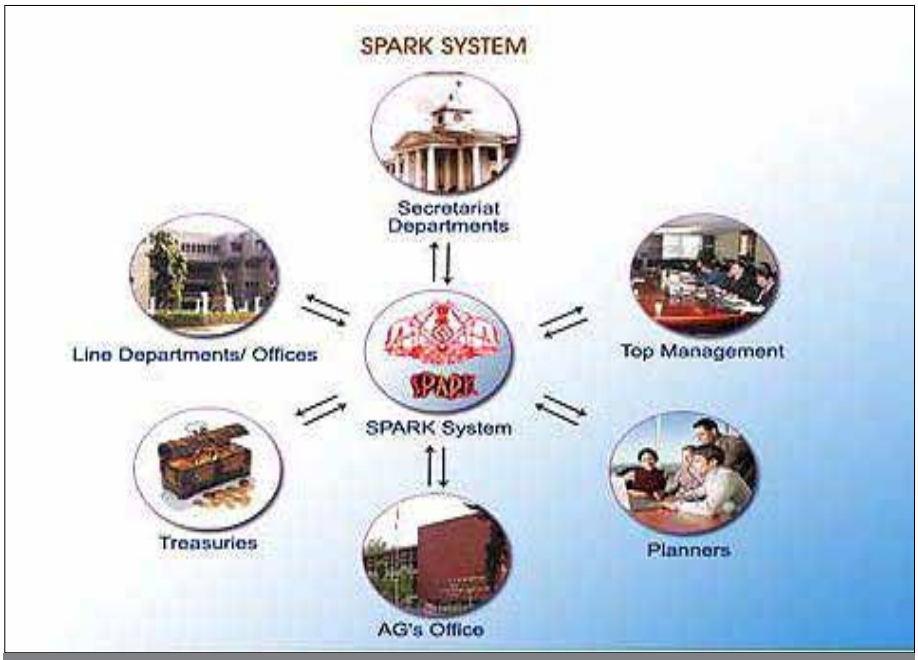
LEGISLATIVE ASSEMBLY INTERPELLATION SYSTEM (LAIS)

LAIS (Legislative Assembly Interpellation System) is a web enabled database solution for the Question-Answer system used by Ministers, MLAs, Officials of Minister Office, KLA, Government departments, Hon'ble Speaker and Niyamasabha Secretary. The LAIS application serves the requirements such as submission of Question Notices, Balloting of names of MLAs, editing of question notices, setting of questions, distribution of questions to departments, replying to questions by the departments concerned, centralised status monitoring, querying and report generation.

LAIS was put to use for the 12th and 13th session of 13 KLA on trial basis and found to be very useful and meeting all the requirements of KLA. Hon'ble Chief Minister, Shri Oommen Chandy in the presence of Hon'ble Speaker Shri N. Sakthan, Hon Ministers, MLAs and senior officials of the Government formally inaugurated LAIS on 20th July 2015. After that it was put to use in the 14th and 15th sessions of 13 KLA. LAIS implementation has enabled KLA to avoid late sitting of officials and improved the work-quality besides the huge saving on paper stationary.

SPARK (SERVICE AND PAYROLL ADMINISTRATIVE REPOSITORY FOR KERALA)

SPARK is an integrated HR and payroll package for employees of Government of Kerala, AIS officers, AICTE / UGC and Judicial staff and part time employees. Presently, the service details of 5 lakhs employees of 30000 offices are being managed and their salary bills are processed through



SPARK - Workflow

this software. Permanent Employee Number for all employees is allotted through the system. Facilities in the software includes, salary and arrear bill processing of employees, Leave surrender processing, processing of overtime allowance, bonus, festival advance, performance allowance, honorarium, claims other than salary, online leave management system etc. The system maintains data dictionary of various rates/ slabs with respect to all earnings, which helps computation of various earnings.

After processing for salary payment and other benefits, the bills are e-submitted to treasury using web service and the salary of individuals gets credited to their bank account. Entitlement of Government aided school employees are authenticated using digital signatures by officers of education department. Interface is given to individual employees to view their salary, loan, leave, GPF, accounts and personnel details. Transfer and postings, LPC generation, increment sanctioning, income tax calculation, form 16 generation etc. makes SPARK a unique application for establishments of Government of Kerala.

Recent Award:

- 41st SKOCH summit 2015- Order of Merit Award

INFORMATION & DATA EXCHANGE ADVANCED SYSTEM (IDEAS)

(http://sics.kerala.gov.in/ideas)

'IDEAS' is a web-based application developed by NIC-Kerala for tracking files and petitions in the Chief Minister's office, Offices of the various Ministries, Govt. Secretariat and other Departments. It has been developed under LAMP platform and hosted at State Data Centre.

Features:

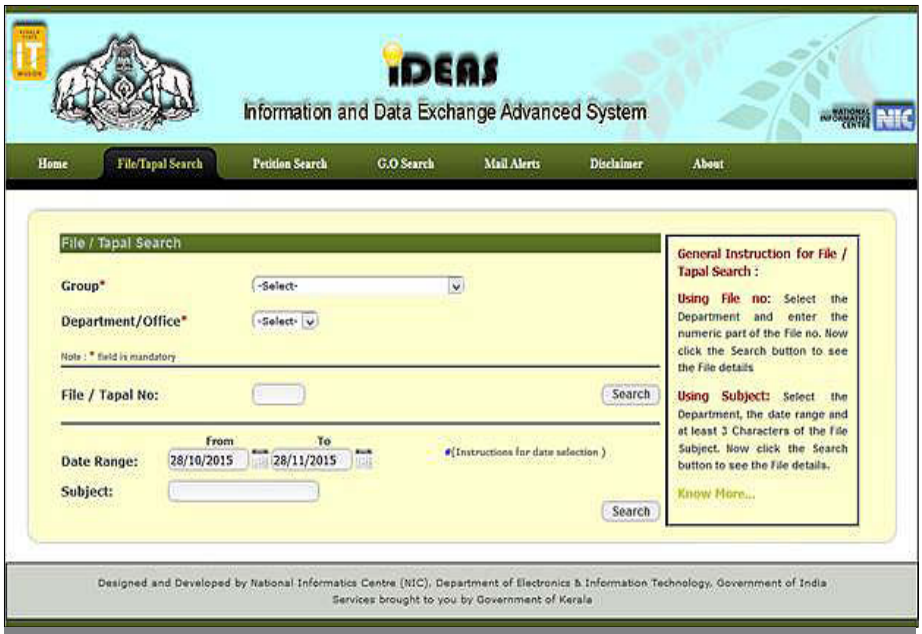
- Automatic Petition / Tapal Number generation, Automatic GO Number Generation, 24 X 7 System availability, Data Security, Reminder Services, Performance Monitoring reports, Employee Contact details, Personal Register, PR Calendar Statistical reports, Meeting Management and Seat based Roll mapping.
- Login details are unaffected by transfers.
- Reports generated can be pushed to other officers.
- Issuance of Pass to Visitors (VFC) Operational in 40 Departments in Govt. Secretariat, 21 Minister offices, all the three Visitors Facilitation Centres in Govt. Secretariat, Port Directorate & Vizhinjam Harbour Office, Motor Vehicles Department (Head office), Forest Department Head office and 9 Subordinate Offices. 25 Offices in KSEB, Department of Public Instructions, 4 Chief Engineers Office in PWD Town Planning Department (Head Office) and Excise Department (Head office).

Recent Award:

- CSI ICFOSS Open Source Award 2015

NEGPA-SERVICE 9 – INFORMATION ON FISHERIES

Government of India has identified 12 services under national e-governance plan in which Service-9 is meant for "Information on fishery inputs management". This service aims to provide information on good practices of fish farming, efficient use of feed materials, dealer networks, quality control, fishermen safety, fish diseases, schemes for fishermen and fish production statistics, automation of fish seed grower registration, vessel registration, expert advice and mechanism for grievance management.



Webpage of IDEAS

Objectives

- To improve operation efficiency of the Department
- To bring all the stake holders under one hub
- To create a single database with single application
- Business intelligence with data warehousing
- Issuance of certificates electronically
- To collect and disseminate the information at right time and to the right users
- To operationalize content based, work flow based, transaction based Application Software with Grievance Redressed Management System and GIS

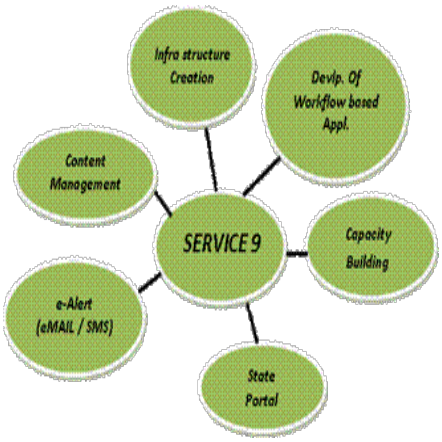
PROJECT COMPONENTS

Networking of Dealers

- Networking all the Depts. & Govt./ Private agencies who are selling/ purchasing fish seeds
- Streamlining the Registration & License activities
- Making effective system for distributing inputs to the beneficiaries
- Disseminating the information on market price & availability of inputs

Information on QC& A

- Networking of all Quality Testing Labs
- Issuing uniform QC & A certificate by agencies (ADAK, MPEDA etc.)



to fish seed growers based on the analytical results from the Quality Testing Labs

- Provide analytical test results and recommendation to the beneficiaries at the fingertip

Market Information system

- Networking all the registered and non registered fish landing centres
- Collection & dissemination of the catch price and arrival details
- To bring the farmers in a better bargaining position and to promote a culture of good agricultural marketing practices. http://agmarknet.nic.in
- Market intelligence system to predict the future price

Fishermen safety system

- A surveillance system for eensuring coastal security and safety to fishermen & fish farmers
- Monitoring of welfare schemes at beneficiary level
- Monitoring of vessel & crew movements
- Online insurance claims, weather forecast, e-alert, Meteorology & Tsunami warning
- Will be linked to early warning system – http://www.incois.gov.in/ I, The Bay of Bengal Programme Inter-Governmental Organisation http://www.bobpigo.org/
- Fishing vessel registration and issuing license to the registered vessels for fishing operation, http ://fishcraft.nic.in
- EWS is a people-centered disaster early warning system that will provide day-to-day possible disaster information to fishermen through SMS - voice message in their language.

Fish Disease Information system

- Effective Disease reporting system to develop disease forecasting models
- Develop disease prevention strategies covering Pest infestation (pathogens, pest / parasites), treatment, reporting of disease, Aquatic Animal Disease and trans – boundary disease. This is one of the components of NADRS project

Fisheries statistics information

- About infrastructure, production of fish, fish seedlings, catch details, fishermen population, market details

Expert advisory system

- After onsite observation of the situation domain expert provide the advisory to fishermen as well as to government official on the website
- Expert advice on any specific issues related to service 9 which will be answered by appropriate domain experts , Levels for query resolution is defined. Proper escalation is automated

Grievance Management

- There is a provision for submit the login based grievance by registered fishermen to Concerned officer.

SMS pull/push

Good management practises for fish farmers

EDROP

(http://www.edrop.gov.in)

eDROP (electronically Deploying Randomly Officers for Polling) is a web based software product developed by NIC Kerala for the State Election Commission/ District Administration in order to deploy officers to polling duty. It felicitates online capturing of details of all institutions and officials in the districts direct from source. eDROP randomly mixes all data and assigns the officials for polling duty. It can handle all aspects related to posting of officials for election duty such as posting order, cancellation and regeneration of posting orders, Attendance, Acutance and effective different levels of randomization. The System provides a 3 level randomization and assigns the officials for polling duty against each polling station.

www.edrop.gov.in facilitates assigning various roles and responsibilities for users. The process of election starts with election notification by the state level user. State/District level users can create code directory such as Local body name & type, polling station details, Taluk, Village, number of officers needed in each polling station, remote, sensitive and forest polling station. The software has features for cancellation and regeneration of posting orders, blocking/unblocking employee based on SEC guidelines, entering remarks like Lactating mother, prolonged illness, Priest/NUN and differentially able employees. The system is intelligent to post male officers to sensitive, remote and forest stations.

Details of nearly 5 Lakhs employee have been collected through the website from source and posted 2 lakhs officers for election duty in the recently concluded general elections 2015 to local self-government.

eDrop is built on open source technologies and is hosted at the Kerala State Government Data Centre Application server. Data base server and replication servers are used for load balancing the Staff data directly collected from source that ensures correctness, accuracy and eliminates duplication. Posting orders after randomization are directly downloadable to local body across state and institutions. Integrated SMS gateway has been smartly integrated to provide instant mobile

Webpage of KUHS

services to posted officials/head of Institutions. State users can add/modify the randomization criteria as per SEC guidelines with ease.

UNIVERSITY*SUITE

'University*Suite' is an integrated combination of applications for automating the entire work of Kerala University of health Sciences. University*Suite follows workflow based architecture covering all the functional areas of the Kerala University of Health Sciences (KUHS). The suite is highly customizable and has features for vertical and horizontal scalability.

Students, faculty members and other stakeholders can apply for services through Internet or 250+ affiliated colleges' help desk or through nearest Community Citizen Centres "AKSHAYA". The workflow system has been covered for all the 251+ affiliated colleges, 60000+ students, 15000+ faculties and 200+ university employees and geographically it covers the entire State of Kerala. Since being Internet based, beneficiaries can apply from any part in the world. After its success in the Kerala University of Health Sciences, University*Suite has been replicated to Kerala Agricultural University for 10+ government colleges, 9000+ students, 400 faculties and 330 employees.

University*Suite is smartly integrated with barcodes, SMS gateway and RFID cards and online point of sale devises.

The web site of University*Suite is hosted at University data centre with one application, one data base and another one replication data base and application server.

COCHIN UNIVERSITY OF SCIENCE & TECHNOLOGY - COMMON ADMISSION TEST (CAT) 2015 AND REAL-TIME COUNSELING & ADMISSIONS

Cochin University of Science & Technology (CUSAT) conducts Common Admission Test (CAT) for admissions to various Undergraduate and Postgraduate courses offered by the University every year. NIC, Software Development and Training Centre (SDTC), Kochi has developed an online portal (http://cusat.nic.in) for the University. Candidates through designated banks make the application fee payment and the payment approval is done by CUSAT online. Roll numbers & Admit cards generation and Venue allocation are made through a software.

Students at CUSAT Counseling Admissions 2015

Home page is available for each candidate with unique login ID, which provides all information pertaining to the online application, status of application, admit card, CAT result, option registration, allotment details etc.

The important features of the **Online Module are Online Application Submission, Payment Approval, Admit Card Generation** and **Result Publication**. After results publishing, candidates can choose their respective course options through the online portal. Once the option registration process is complete, Real Time Counseling to the various courses commences. This involves candidate registration, allotment from registered candidates, certificate verification, challan generation for fee payment, payment approval and admission letter generation.

There are four major software modules for the entire process:

Online Registration Module:

For candidate registration, user management, online application registration and option registration.

Online Administrative Module:

For CUSAT to verify the submitted applications, approve or reject the applications and generation of various statistical reports.

Offline Administrative Module:

Used to generate roll numbers, venue management, venue allocation for candidates, admit card generation and all reports required for conducting the CAT at various centres spread across the Country.

Counseling Module:

Counseling module is used for Real Time Counseling at CUSAT. Candidates report at the counseling venue and register themselves through using this module. Afterwards, designated course allotment is made to the registered candidates. Once allotted, the certificate verification, challan generation of payment, payment approval, admission letter generation and all reports required are generated through this module. The module also generates waiting list for each course based on the number of candidates admitted on each date. The counseling module is designed to take care of single rank multiple courses.

HSCAP – HIGHER SECONDARY CENTRALIZED ALLOTMENT PROCESS

'hsCAP' is unique software for centralized seat allotment process of Plus One higher secondary courses. hsCAP system was introduced in Kerala for the first time in India in the year 2007 in order to simplify the admission process and to evade malpractices.

The Process:

Candidates wanting to get admission for +1 course in any of the Government or Government Aided School can apply online through this system. Applicants are required to submit only one online application for any course in any of the schools in a district choosing from the appropriate school-course combination options. As part of the allotment processing, the system will generate School wise - Course wise ranks for all the applied candidates. In other words, one candidate will have different rank in different schools and in different courses.

Each rank is generated based on the Weighted Grade Point Average (a calculation procedure giving weightage as per the opted course), bonus points, tie breaking values, option number etc. Bonus points are for students studied in same school, same local body, same taluk etc. Allotment is an iterative process in the order of rank in each course. Once the candidate got an allotment then his lower options will be removed. The higher options will be considered in the subsequent allotments.

The system has been implemented to benefit about 4 lakhs students from the 14 districts of Kerala.

E-COIR (COIR SECTOR MSME BENEFIT MANAGEMENT SYSTEM)

The e-Coir project aims at total computerization of the Coir Board based on a total ICT solution with Internet and Intranet portals. These include dynamic web site, portals for marketing, trading and virtual showrooms with associated software components promoting coir products and services. In the Coir board portal, registered traders and manufacturers can customize their virtual showrooms. This enable customers to visit a single portal for marketing and trading. Through the system, link to portals of respective traders or manufacturers from Coir Board Portal (e-Coir) can be made. It is expected that these ICT based portals would usher in a new era of showcasing the Coir Products from India as well as bring in additional channels for marketing and trading.

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Hyper-V with Failover Clustering

Enhancing Computing Efficiency

Cabinet Secretariat Informatics Division's Data Centre has multiple physical hosts configured as a single cluster, running Hyper-V services in failover clustering mode and housing different virtual machines for various servers. Virtual hard disks are connected to these machines as shared resources via Cluster Shared Volume, which is configured through Storage Area Network.

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Hyper-V with Failover Clustering is a combination of three technologies: Hyper-V, Failover Clustering and Cluster Shared Volume. Combination of these ensures optimal usage of the available resources, high availability and live-migration of running machines. Implemented at the Cabinet Secretariat Data Centre (CSDC), this combination possesses several advantages that ensure high efficiency in performances. Hyper-V is one of the roles present in the Server® 2008 R2 or higher that enables creation of a virtualized server computing environment improving the efficiency of computing resources.

FAILOVER CLUSTERING

Failover Clustering is one of the features of Windows Server Operating System that facilitate to create and manage failover clusters. A failover cluster is a group of independent computers that work together to increase the availability of applications and services. If one of the machines in the cluster fails, another machine begins to provide service (a process known as failover). This minimises disruption of services.

CLUSTER SHARED VOLUMES

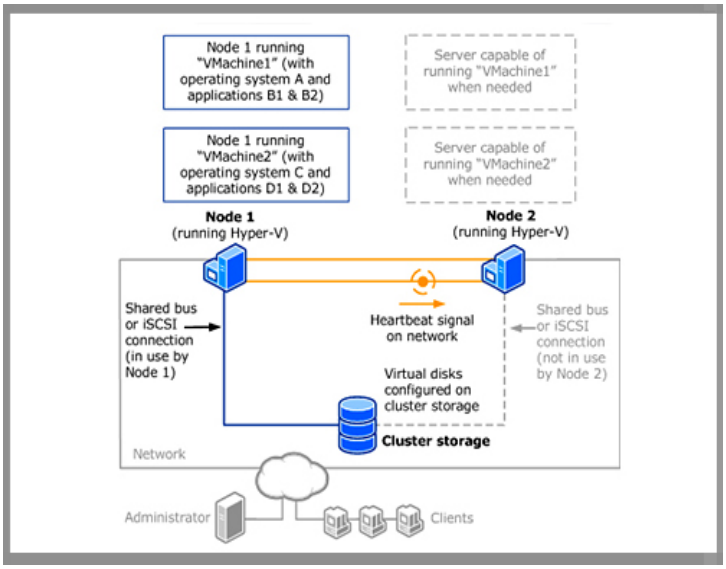
Cluster Shared Volumes are volumes present in the shared storage area and are shared by multiple machines present in the same cluster, meaning they can read from and write to on the same Volume. The machines coordinate the reading and writing activity so that the disk is not corrupted. Whereas, disks with LUN (Logical Unit Number) in Cluster Storage that are not Cluster Shared Volumes are always owned by a single machine at a time.

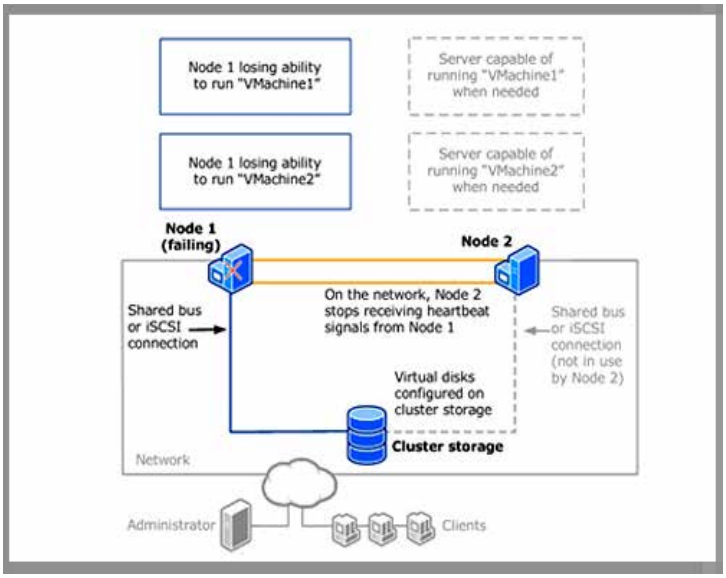
HOW HYPER-V FAILOVER CLUSTER DIFFERS FROM NORMAL FAILOVER CLUSTER

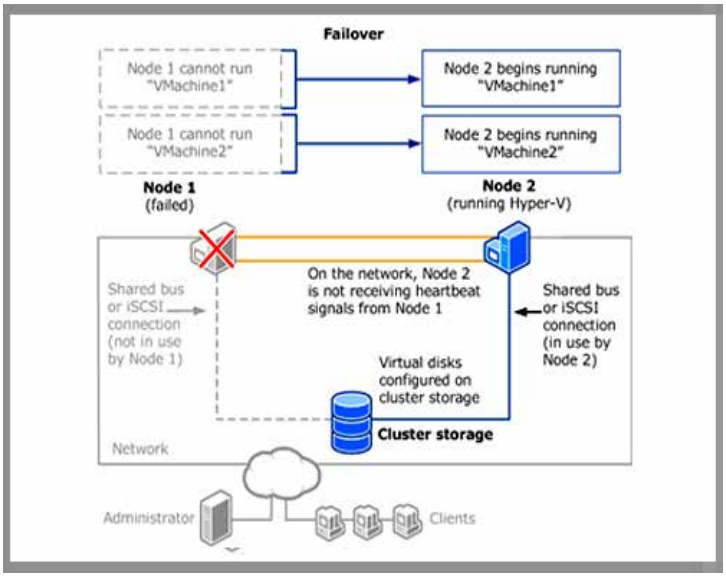
In normal Failover Cluster, two or more computers are joined to form a cluster. An application is installed to each of them, which are then designated as a cluster resource. Other resources such as disk storage can also be designated as a cluster resource. From there, behaviour is dependent on the application or resource being clustered. In some cases, the application or resource is "owned" by one host at a time and can manually or automatically be transferred to any other host in the cluster. In other cases, the application runs on all hosts simultaneously and is balanced across the hosts. In Hyper-V failover cluster, the Hyper-V is the application and the Cluster Shared Volume is the shared resource.

BENEFITS

There are several advantages of using Hyper-V with Failover clustering. One among the key benefits of virtualization is 'High Availability', a







term which refer to a group of technologies that allows to keep a virtual machine online even when it's intended physical host is not available.

Normal clustering requires more time for reconfiguring whenever there is a change in the application. But in Hyper-V with failover Clustering, since every application runs on Virtual Server, any change on the Virtual Machine doesn't affect the Clustering and hence it is fast.

If all the machines in the Cluster fail, then the VHD (Virtual Hard Disk) can be attached to any other available physical server and can be made live within few minutes and with minimum effort.

One of the major advantages of Hyper-V Failover Clustering is live migration. It enables moving a running virtual machine from one physical server to another without interruption of the services. It moves running virtual machines from one node of the failover cluster to another node in the same cluster without a dropped network connection or perceived downtime.

REQUIREMENTS

Servers:

Though the best practice for clustering is to use identical computers, it is also possible to use mixed hardware within the Hyper-V Cluster. The Hyper-V cannot Live Migrate between CPUs from different manufacturers and hence building a cluster that combines Intel and AMD chips would prove to be a wasteful effort other than for pure failover purposes. Even then, there's no guarantee for virtual machines to perform well with the mixed environment. For any hardware used, its CPU should support native virtualization (VT on Intel and AMD-V on AMD) and that support must be enabled in the BIOS. It is required to have its hardware Data Execution Prevention enabled in the BIOS (XD on Intel, NX on AMD). In case the RemoteFX is used, the CPU will have to support Second-Level Address Translation (SLAT) and the computers would require graphics processors that can run DirectX 9 or higher. These CPUs must also have enough dedicated memory for all of the virtual machines which will be running on them. For optimal operations, each computer is required to have at least four network cards. A minimum of one more card would have to be added if it is to be connected to storage devices by Internet Small Computer System Interface (iSCSI).

1. Fiber Channel Switches (2 Nos Active – Passive Mode)

2. Multiple Physical host Configured as a Single Cluster and running Hyper-V as Services.

Storage Device(s):

A central requirement of clustering is shared storage. Depending on the amount of workload and budget allocation, shared storage can be a computer with Windows Server and iSCSI target software installed and made to work as Network Attached Storage (NAS) device or a powerful Storage Area Network (SAN). The device chosen must support iSCSI-3 persistent reservations. Fiber channel SANs usually meet the requirement.

THE NETWORK EQUIPMENT

All the hardware are to be connected and the best way is through a switch. For this, an iSCSI system with a layer-2 managed switch with sufficient gigabit ports to handle all the network cards of the hardware can be used. It is considered a good practice to completely segregate the iSCSI traffic by placing it on its own physical switches that are not connected to any others. However, this is not an ideal solution when there are budgetary constraints. If this iSCSI network cannot physically be separated, at least setting up a separate Virtual Local Area Network (VLAN) may have to be ensured. Fiber channel installations will have their own requirements, but it is preferable to use fiber channel switches rather than to directly connect the hosts to the storage device.

MUST-DO WITH HYPER-V FAILOVER

Taking backup of the Virtual Hard Disk (VHD) file is the main requirement of the Hyper-V failover clustering to ensure reliability. Windows Server 2012 onwards support incremental backup of virtual hard disks while the virtual machine is running (with Hyper-V). During this process, only the differences are backed up. Manual backup of VHD file is also possible as the VSS (Volume Shadow Copy Service) writer allow reading the VHD file when it is mounted to any virtual machine.

LIMITATIONS

- A maximum limit of 64 nodes in the failover cluster
- An upper limit of 8000 virtual machines per cluster and with a maximum of 1024 virtual machines on one node
- The number of virtual machines allowed for each node does not change regardless of size of the cluster
- Servers running Hyper-V can have maximum of 320 Logical processors and 4TB physical memory only
- Each Virtual Machines created on the Hyper-V can have only a maximum of 64 virtual processors, 1TB of physical memory and hard disk of size 64TB, if VHDX format is used (Windows Server 2012 onwards)

IMPLEMENTATION AT CSDC

Hyper-V failover clustering satisfies all major requirements of the Cabinet Secretariat Informatics Division's Data Centre. The Data Centre demands high availability of servers, live migration during server maintenance, quick configuration in case of failure of all Nodes of the cluster. Thus the Hyper-V failover clustering was implemented with multiple physical hosts configured as a Single Cluster, running Hyper-V services in failover clustering mode and housing different Virtual Machines for various servers. VHDs are connected to these Virtual Machines as shared resources via Cluster Shared Volume configured through Storage Area Network. The SAN is connected to the Cluster via Fiber Channel Switches with iSCSI as standby.

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WebCon Portal

Facilitating eLearning Services by NIC

WebCon Portal of NIC facilitates online learning and web conferences services through open source software in the NIC cloud environment. The portal facilitates users for real time sharing of audio, video, slides, chat and presenter's desktop. These services are provided under the umbrella of Web Learning Services for training, project implementation rollouts, iClass, iMeetings etc.

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e-Learning services by NIC Telematics Division was launched in the year 2006 using AT&T Connect application (formerly known as Interwise) a proprietary software. It was used to provide e-Learning services such as trainings, project implementation rollouts, iClass, and iMeetings.

These services are now provided through WebCon using customised open source software and hosted at NIC's Cloud environment. WebCon has a capacity to cater over 500 concurrent connections for each session with all features of AT&T Connect Application. These services are being provided under the Web Learning Services umbrella.

WEBCON PORTAL

WebCon Portal, based on the Open e-Gov Policy of DeitY, is an open source initiative to provide online learning and web conferencing services. This portal facilitates WebCon for real time sharing of audio, video, slides, chat and presenter's desktop. The software used for WebCon does not limit the number of concurrent users, if the bandwidth is large.

Users can access the portal through web browsers to chat, send and receive audio and/or video to have quality online learning experience. The Session moderator can manage sessions with controls such as mute/unmute, block/unblock and upgrade/downgrade the participants. Changing the status of a current viewer to presenter or vice-versa is an example of controlling a participant by session moderator.

TECHNOLOGY FEATURES

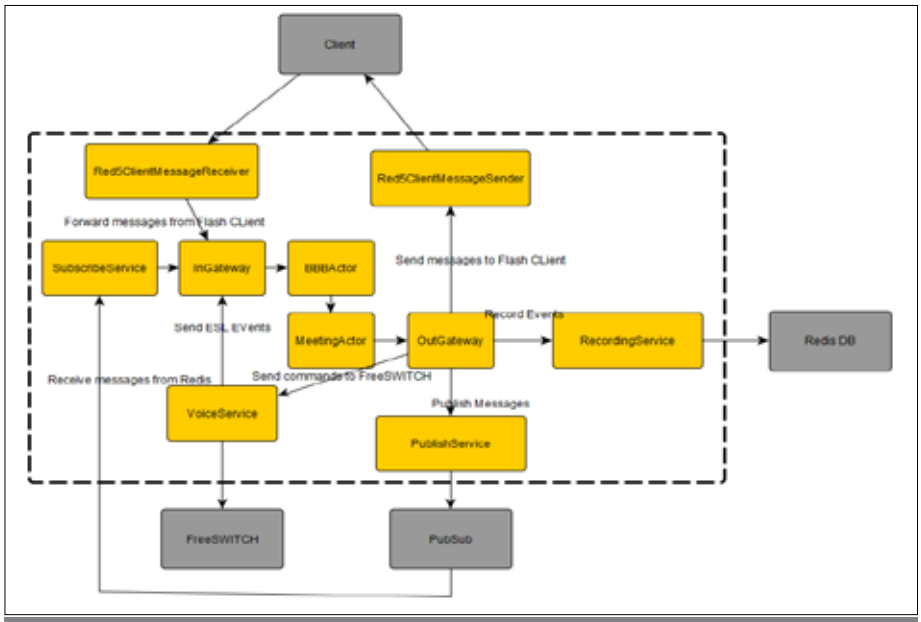
WebCon use the Web Real Time Communications (WebRTC), audio sampled at 48KHz and encoded through Opus Codec, which is open source and royalty free. This communicates via UDP through an internal FreeSwitch and provides very high quality yet low latency audio with lower delay. Web browsers such as Chrome and Firefox use WebRTC.

WebCon has the 'Audio Check' to ensure that all users have operational microphones during a session. This can be checked even before one joins the session. It also provides a 'Listen Only' mode for the users with no microphone, which converts the session that is similar to a webinar. The recording interface has control buttons for moderators to mark portions of recorded sessions to be saved for publishing. Once a session is over, WebCon server extracts marked segments for publishing.

WebCon runs on an open source platform comprising of Ubuntu 14.04 64 bit version with Tomcat 7, Java 1.7 and a suite of related open sopurce software.

HIGH LEVEL ARCHITECTURE

The client for WebCon is a 'Flash' ap-



WebCon Portal Architecture

plication, which runs on a web browser that communicates to Red5 on the WebCon server through Real Time Messaging Protocol (RTMP) or Real Time Messaging Protocol Tunnelling (RTMPT) protocols in intranets. This also runs on restricted/under firewall networks where only port 80 is open. For restricted networks, WebCon uses Nginx for proxy connections to Red5. For voice conferencing clients, it uses WebRTC to communicate with FreeSwitch. With the use of Nginx, it also communicates with Tomcat for the WebAPI for third party applications like WordPress for managing WebCon.

WebCon is the main application, which in collaboration with a suite of software provides real-time e-Learning or meeting experience. It lists the users, chat, presentations and white board in a meeting. Some of the relevant components used to communicate with the external world are Red5 Client Message Sender/Receiver, which communicates with Flash client on a web browser and publishing messages and events to Redis Database. VoiceService components use Free Switch for communication in voice conferencing. For recorded meetings, it uses the Redis Database through recording service and internally the recording processor for all recorded events including raw files like pdf, wav, flv etc. for processing.

Libre-Office manages all uploaded content, converting them into either SWF or PDF using SWF tools. When a PDF page fails to be converted to SWF, an image snapshot of the page is taken using ImageMagick and GostScript, and then converted to PDF and SWF. Different server side components are coordinated and managed by the Redis PubSub. Managing of users, chats, whiteboard, presentation etc. are handled by the Red5Apps. DeskShare allows presenters to share their desktops, while the voice application allows users to call into voice conference either as active participants or as just listeners. Video app allows sharing of participants' webcams during meetings.

Client for the WebCon runs within a browser. The main application is Flash with JavaScript libraries connecting to FreeSwitch, launching the Desktop sharing applet send and receive messages using a client bus for components to communicate with each other.

WEBCON EVENTS OVERVIEW

- i-Class, 1049 sessions with 12,596 participants
- i-Meetings, 1142 sessions with 10,133 participants
- i-Seminar, 17 sessions with 1844 participants

IMPORTANT EVENTS UPDATE

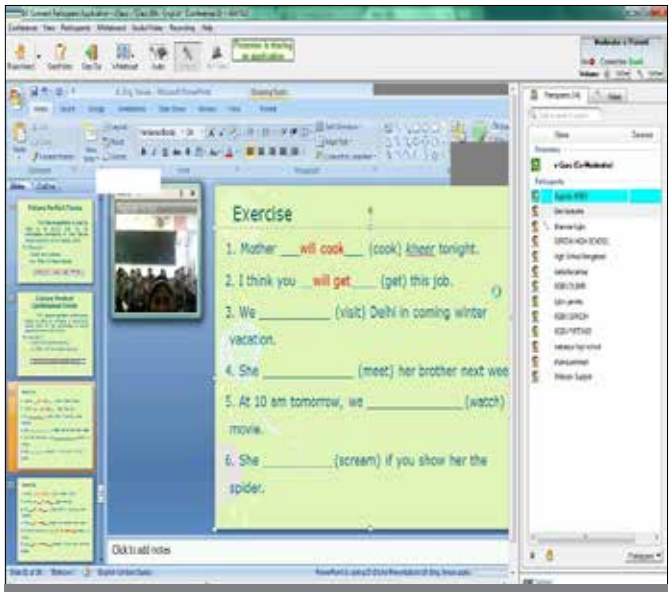
Regular events

1. Consortium for Educational Communication (CEC) online orientation and training on a regular basis on MOOC's for subject experts and technical staff located across 17 media locations pan India.
2. Training on Central Public Procurement portal on regular basis on all working days.
3. Computer networking of Consumer Forum (CONFONET) to 500 locations pan India
4. Soil Health Card Software demo for Department of Agriculture, GoI
5. National Animal Diseases Reporting System (NADRS)
6. Integrated Disease Surveillance Programme (IDSP) on regular basis for 800 locations
7. School Programme to blocks of Giridih District of Jharkhand

One-time events

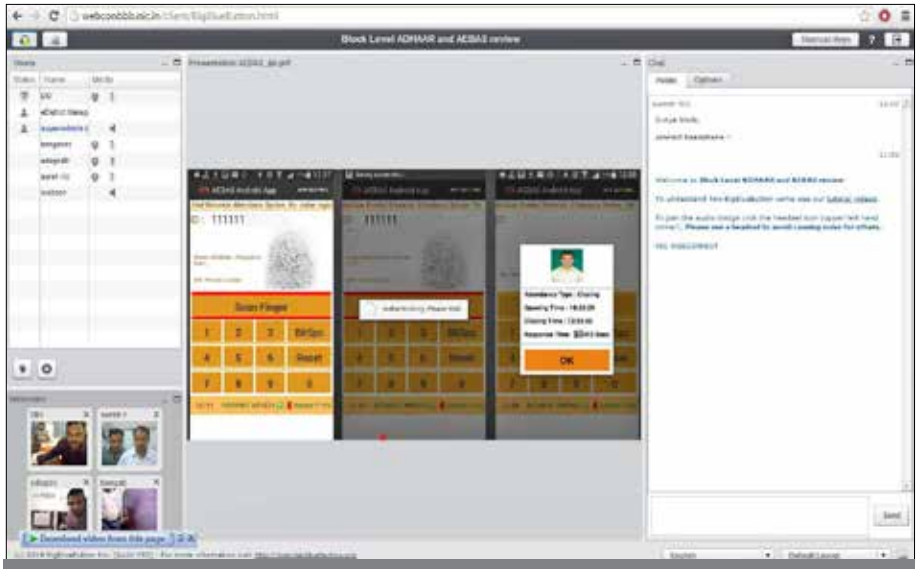
1. Digital India Week web learning to impart training to 600 DIOs of NIC

CGL 2015 Video Conference interface screenshot



I-Class for Class 9 (English) in progress

2. Training for AEBAS and Aadhaar for Giridih district Jharkhand
3. Socio-Economic Caste Census 2011 training
4. Staff Selection Commission (SSC) Chairman's meeting with all 16 regional heads for CGL exam
5. e-Learning sessions on various technology topics like .Net, Java, Linux etc. for NIC across the country
6. Webinar on User Awareness Programme for NIC S&T professionals
7. Electronic Performance Appraisal Report (e-PAR) training
8. Hindi Karyashala
9. GIGW (Guidelines for Indian Government Websites)
10. Awareness programmes on e-Resources
11. Source code review of application using Static Code Analyser
12. Webinar on Dial.Gov
13. Network technologies & management



Block level Aadhaar and Aebas review

HIGHLIGHTS

- WebCon eLearning software is hosted at 'MeghRaj' Cloud, which ensures safe and uninterrupted services
- To enhance the eLearning services further, Telematics Division is currently in the process of integration of it with open source LMS
- Being open source software, there is no development and maintenance cost implications. This benefits Government by saving time and money

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Lahaul & Spiti

Vanquishing the Challenges through ICT

The NIC District Unit of Lahaul & Spiti District was established in the year 1988 and since then it had been instrumental in providing ICT solutions and services to the District Administration. NIC has always ensured that its officers are posted at this remote district to provide necessary ICT support for the district administration and other departments to facilitate efficient e-Governance.

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VIVEK VERMA

The Lahaul & Spiti is one of the remotest districts with extreme living conditions. Because of its geographical position, the region remains snowbound and landlocked for about six months (November to May) every year. During this period, the district remains almost cut off from rest of the world. One of the distinctive facts about Lahaul & Spiti is that, though it is the Himachal Pradesh's largest district, spread over an area of 13,833 Sq. Kms, it has a population of just 31,528 citizens which is lesser than 0.5% of the State's total population and averaging to a population density of about 2 persons per Sq. km. This is primarily due to the extreme climatic conditions of the region, which makes the living of people difficult and challenging.

The administrative centre of the Lahaul & Spiti district is Keylong, which is located at 115 Kms ahead of Manali in the highway between Manali and Leh. The National Informatics Centre Lahaul & Spiti District Unit, which was established at Keylong in 1988, had been instrumental in providing ICT solutions and technology services to the district administration and other departments. NIC has always ensured that its officers are posted at this remote district to provide continuous ICT support to facilitate efficient e-Governance.

KEY ICT INITIATIVES

DISTRICT WEBSITE

NIC has developed and maintains the official website of the district (http://hplahaulspiti.nic.in) to provide valuable information pertaining to citizen services and e-Governance activities of Lahaul & Spiti. Besides these, the site also has useful information for the tourists and visitors of the district, which includes route maps, details of destinations, accommodation, trekking, adventure tourism activities and important information for tourists from foreign countries.

"The District Unit of NIC has always played a pivotal role in channelizing the powers of e-Governance to the masses in this remote and hard District. Such initiatives not only streamline the processes but also bring efficiency and transparency in Government functioning. It is pertinent to mention here that when the entire District remains cut off from the rest of the World for 6 to 7 months, the only means of communication available within the valley is through the NIC satellite link.

I sincerely appreciate the efforts put in by the NIC District Unit officials."

H.R. CHAUHAN, IAS
DEPUTY COMMISSIONER

Shri H.R. Chauhan, DC with NIC officers after a heavy snow fall at Keylong

e-Udaan: e-Udaan is a web based software which is used by district administration especially during the winter season for reservation of helicopter service and management of flight schedules. Helicopter is the only mode of transportation during winter for officials and residents of the district. The components/features of e-Udaan- Application Management System are the following:

- Facilitation of application submission for reservation/booking of seats in flight
- Generation of challans for the ticket amount
- Monitoring and scheduling of flights
- Automate the allotment of seats in scheduled flights as per rules
- Generation of reports of pending applications, allotted seats and cancelled applications

NICNET AND VIDEO CONFERENCING

The NIC District Unit is connected with the State Unit and NIC HQ using a 34 Mbps BSNL link and a 2Mbps VSAT system as back up. The video conferencing services (Point to Point/ Multi Point) are provided to district administration and other departments of district, which keep them connected even during difficult weather conditions.

The Video Conferencing (VC), Internet and Email services provided by NIC addresses the communication challenges, as these are the reliable means of communications during winter. The VC is also beneficial to department by saving time and money.

Following are the various software systems implemented by NIC in the district, which are efficiently supported by NIC District Unit:

FINANCE & ACCOUNTS

e-Pension: This software has been implemented in District Treasury for calculation, modification, processing and disbursement of pensions of State Government pensioners.

e-Salary: The software is used to process monthly salary of employees and disburse it directly through banks (ECS) to the employee account.

e-Kosh: e-Kosh is an application software implemented at all the treasuries for budget allocation and online processing of bills.

REVENUE

HimBhoomi and Himachal Registration System (HimRIS): HimRIS is operational at all Tehsils and sub-Tehsils. Copies of RoR are being issued to citizens from Sugam centres and Lok Mitra kendras.

Lok Pramaan Patra: This software is used to issue 14 types of Certificates from the Sub Division Office, Tehsils and Sub-Tehsils.

HOME

National Database of Arm License (NDAL): This standard software has been implemented in the district to generate Unique Identification Number (UIN) to each arm licence holder.

Immigration, VISA, Foreigners Registration and Tracking System (IVFRT): cFRO, c-Form modules of IVFRT has been implemented at Foreigner Registration Office.

SOCIAL JUSTICE & EMPOWERMENT

e-Kalyan: Social security pension to all eligible beneficiaries is prepared through this software and pension is disbursed through postal money orders to all pensioners on a quarterly basis.

ELECTION

Electoral Rolls Management System (ERMS): Electoral rolls for Panchayati Raj Institution and Local rural bodies' elections are prepared through ERMS.

PERSONNEL

Manav Sampada (ERMS): Service details of each employee are maintained through this web-based software.

GRIEVANCE REDRESSAL

e-Samadhan: This is the online role based system developed for effective monitoring & disposal of grievances in all departments.

For further information, please contact:
DISTRICT INFORMATICS OFFICER
NIC District Unit, Keylong
Lahaul & Spiti, Himachal Pradesh-175132
Phone: 01900-222759
Email: hplsp@nic.in

International e-Gov Update

Beta version of European Data Portal launched

The European Commission has launched beta version of the European Data Portal at the European Data Forum with more than 240,000 datasets. The European Data Portal (www.europeandataportal.eu) enables fast and simple searching of open data from 34 European countries and supports their systematic onward use. Open data comprises of information gathered, generated or purchased by public institutions that may be used, modified and shared freely by anyone. The European Commission aims to use the European Data Portal to simplify access to this data in order to more successfully tap into its enormous economic potential. However, state administrations, research institutes and the general public also stand to benefit from open data which is enabled through optimised administrative processes, increased transparency and improved possibilities for participation of those associated with it.

Another feature available at the portal is the search for place names for simplifying the discovery of datasets by means of spatial search criteria. For this, conterra deploys the smart.finder, a solution that allows rapid discovery and structured access to extensive, heterogeneous datasets. The basic data is drawn from such sources as the geographical names according to INSPIRE Annex I and open data from geonames.org, which

are harmonised and combined with the aid of the FME spatial data hub. The INSPIRE-compliant OGC Web Feature Service that has recently been made available by the Federal Agency for Cartography and Geodesy (BKG) is also used for geographical names in the construction of this so-called gazetteer.

The provision of the beta version represents the European Data Portal's first public phase. The main aim is to obtain feedback from the public to allow onward development of the multi-million-euro project within the consortium, in accordance with requirements.

Source: http://www.gim-international.com/

HKO launches new global weather information portal

Hong Kong Observatory (HKO) launched the "Met on Map", a new web portal (maps.weather.gov.hk/gis-portal/web) on 10th December 2015, which provides integrated global weather and geophysical information on a Geographic Information System platform for access by the public according to their needs.

"Met on Map" allows users to overlay different types of weather information, such as temperature, wind speed & direction, radar and satellite images on the detailed maps through web browsers on computers, smart phones and tablets.

Besides offering weather observations, the maps can also display weather forecasts for different locations in Hong Kong, marine forecasts for neighbouring sea areas and global earthquake reports. "As more and more people travel around the world for work and leisure, the need for global weather information has been increasing. The Observatory's 'Met on Map' is not only handy to travellers, but also very helpful for the relief operations of the Red Cross" said Betty Lau, Head of International and Relief Service at the Hong Kong Red Cross.

Going forward, the "Met on Map" web portal will be enhanced with other weather and geophysical information, such as satellite images covering the whole globe, tropical cyclone tracks and weather maps, according to the HKO.

Source: http://news.xinhuanet.com/

2015 Waseda-IAC International e-Government Rankings

Waseda University, Tokyo, in cooperation with the International Academy of CIOs (IAC), has released the results of its annual international e-government rankings survey for 2015.

This publication represents the eleventh consecutive year of the global e-government survey by the team of Professor Toshio OBI, Director of the Waseda University Institute of e-Government and experts at worldwide IAC member universities.

The results of the survey find Singapore in first place, followed by the United States, Denmark, the United Kingdom and Korea. India's position is 35th with a score of 56.42.

Source: https://www.waseda

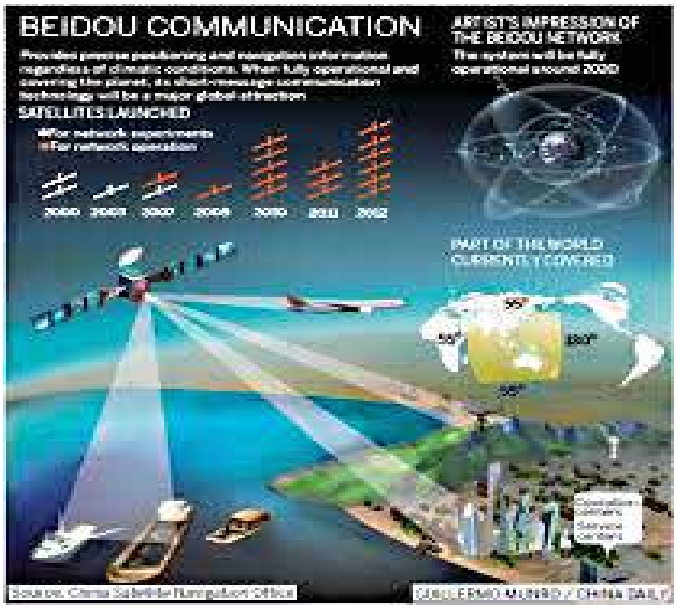
No	Final Rankings	Score	No	Final Rankings	Score	No	Final Rankings	Score
1	Singapore	93.80	22	Thailand	67.31	43	Brunei	51.06
2	USA	93.58	23	Israel	65.80	44	Bahrain	50.50
3	Denmark	91.25	24	HK SAR	65.24	45	Brazil	50.37
4	UK	90.17	25	Malaysia	64.87	46	Argentina	50.32
5	Korea	89.39	26	Portugal	63.93	47	Colombia	49.36
6	Japan	87.77	27	Czech Republic	63.48	48	South Africa	49.30
7	Australia	86.30	28	Italy	61.30	49	China	48.36
8	Estonia	84.87	29	Indonesia	60.11	50	Kazakhstan	47.73
9	Canada	81.45	30	UAE	58.10	51	Saudi Arabia	47.48
10	Norway	79.63	31	Poland	57.30	52	Peru	46.21
11	Sweden	77.95	32	Spain	57.12	53	Tunisia	45.87
12	Austria	77.26	33	Vietnam	57.03	54	Venezuela	44.65
13	New Zealand	76.66	34	Russia	56.56	55	Uruguay	44.01
14	Finland	76.49	35	India	56.42	56	Morocco	43.13
15	Germany	76.46	36	Macau	56.27	57	Pakistan	42.94
16	France	73.39	37	Chile	53.49	58	Costa Rica	42.06
17	Chinese Taipei	72.76	38	Mexico	53.41	59	Georgia	40.73
18	Belgium	71.69	39	Romania	53.11	60	Nigeria	38.37
19	Iceland	69.73	40	Oman	51.60	61	Fiji	37.54
20	Netherlands	69.53	41	Philippines	51.47	62	Egypt	37.19
21	Switzerland	69.17	42	Turkey	51.31	63	Kenya	32.91

Table 1: Waseda – IAC e-Government Overall Ranking 2015

China builds ground service center for Satnav system

A ground data center that will support China's independent satellite navigation system was given the go-ahead to offer Location Based Services (LBS).

Located in central China's Henan Province, the center features 63 data stations that are able to increase the resolution of images downloaded from the Beidou Navigation Satellite System from ten meters to mere millimetres.



"From chips, receivers to servers, all of the center's components are 'Made-in-China,' which makes it the first independent data system under total control of our country. It's of crucial significance to our country's infrastructure and information security," said Beidou expert Li Guangyun.

China began developing the satellite system in 1994 as an alternative to the U.S.-operated GPS. It plans to complete a constellation of 35 satellites, achieving global coverage, by 2020. The data center was developed by the Information Engineering University of the People's Liberation Army (PLA) in cooperation with various domestic companies and research institutes. The university also headed the original development of Beidou.

With myriad functions that include satellite navigation, precision time synchronization and speed measuring, the center's services will first be applied in traffic, water resources, agriculture and police affairs, with a project to monitor the province's freeway network soon to go live.

According to Li, a professor with the University, the Henan center, the first of its kind at the provincial level, has laid the technical foundation for the navigation system to share data with more users in the future.

Source: http://news.xinhuanet.com

Cyber Governance

Website of Department of Science and Technology

The Department of Science & Technology plays a pivotal role in promotion of science & technology in the country. The department has wide ranging activities from promoting high end basic research and development of cutting edge technologies on one hand to provide service to the technological requirements of the common man through development of appropriate skills and technologies on the other.

The newly revamped information rich website of Department of Science comes with content divided into individual sections to facilitate easy access by users. Global navigation bar provides access to the different sections and their activities. Various scientific programs and scientific services are showcased in detail in the global navigation bar in the header area. The website also offers details of officials concerned with each program.

The Homepage makes a subtle use of colours and provides a brief overview about the department. Slider banners have been provided for dissemination of important information. Content on the homepage, is well organised with information pertaining to important documents, related organizations, press releases, tenders and visitors statistics displayed prominently. The content seems to be reviewed frequently for currency and relevancy. Site is easily navigable and provides quick and easy access to different sections.

The website is compliant with GIGW guidelines and has explicitly stated Disclaimer, Privacy Policy and Terms of Use. The site is responsive and adapts well to different devices and screen sizes.

Website of Ministry of Textiles (http://ministryof textiles.gov.in)

The indigenously designed website of ministry of textiles is endowed with up-to-date content arranged in two broad categories on the Homepage which showcases the different sectors and schemes of the Ministry. The website makes rich use of colors and graphics to highlight the different sections. It also has a large repository of documents that are categorised under various sections and presented prominently on the homepage. The website provides affluent content on significant topics catering to the requirements of diverse users. It seems to be updated on a regular basis to keep the visitors abreast with latest information and this is also reflected in the "what's new" section presented on the homepage. Despite the amount of information provided, the homepage looks clutter free and sober.

The website is responsive and adapts well to different screen sizes. It is compatible with all the major browsers. Ministry of textiles website is bilingual with English and Hindi versions. The website also has explicitly stated Terms & Conditions and Website Policies. The site comes with accessibility features to facilitate visitors with visual impairment and is compliant with the guidelines for Indian government websites (GIGW).

Website is easily navigable and has Sitemap covering links up to the last level. Search facility is also integrated to allow easy access to any information from single point.

Website of Ministry of Women and Child Development

The Department of Women and Child Development, Government of India, came into existence as a separate Ministry with effect from 30th January, 2006; earlier since 1985 it was a Department under the Ministry of Human Resources Development. The Ministry was constituted with the prime intention of addressing gaps in State action for women and children for promoting inter-Ministerial and inter-sectoral convergence to create gender equitable and child-centred legislation, policies and programmes.

The vibrant website makes rich use of colour and is also a deep-pocketed repository of latest information. It caters to the information needs of various stakeholders by providing access to all the policies and guidelines issued by the Ministry. Schemes related to women and children are prominently showcased on the homepage.

A visitor can easily navigate from one section to the other without any difficulty. A clutter-free responsive design helps the user to find content as per their needs and requirements on desktops as well as all handheld devices. All content of the website is well categorized and displayed in a structured manner. The website is compliant with GIGW guidelines.

The website is bilingual with both Hindi and English versions. The website also offers an interactive element by the use of online Feedback form so that the users can share their suggestions. The sitemap is also incorporated and covers the links up to the last level. Site search module has also been provided in the header of the site. Accessibility features such as skip to content, font size increase and high contrast have been provided to facilitate ease of use of visitors with visual impairments and low vision. The ministry has a significant presence on social media including Facebook, twitter and you tube.

Website of Ministry of Youth Affairs and Sports

The Ministry of Youth Affairs & Sports was initially set up as the Department of Sports in 1982 at the time of organization of the IX Asian Games in New Delhi. Its name was changed to the Department of Youth affairs & sports during celebration of the International Youth Year, 1985. It became a Ministry on 27th May 2000. Subsequently, the Ministry has been bifurcated in Dept. of Youth Affairs and Dept. of Sports.

The conscientiously designed website offers plethora of content. Homepage of the website displays information about the ministry with two separate sections catering to information on the department of sports and department of youth affairs. Common information related to both the departments like tenders, RTI and news is also displayed on the homepage.

The website comes with a detailed Site Map and a Search button facilitating text search in web pages as well as linked documents. It also has overtly stated Privacy Policy, Hyperlink Policy, Content Copyright Policy and Terms & Conditions. The website is compliant with GIGW guidelines and site is compatible with assistive technologies such as Screen Readers Access to facilitate readers with visual impairment.

The website is compatible with all major browsers and comes with a Feedback section for inviting valuable comments/feedback from users. Link to a photo gallery section showcasing important activities of the ministry is present on the homepage.

The website has an easy to use navigation and the pages are designed to be responsive across various screen sizes and devices.

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"Concrete and Effective e-Governance Framework" received eLETS e-INDIA AWARDS 2015 for Smart Governance

Award: **SMART CITY AWARDS**

Categ: **Smart Governance Initiative**

State: **Maharashtra**

'Concrete and Effective e-Governance Framework' enables optimum use of technical resources with minimal technical efforts and exercises for delivering improved services by Government. The framework improves throughput and efficiency thus achieving the 'Minimum Government Maximum Governance' concept of eGovernance, meaning the more from less for more and more.

"HimBhoomi-Integrated Land Records Computerisation" received CSI Nihilent e-Governance Award 2015

Award: **CSI Nihilent e-Governance Award**

Categ: **e-Governance Initiative**

State: **Himachal Pradesh**

The HimBhoomi is an integrated solution for Himachal Pradesh related to land records, covering registration, land records, maps, lease cases, delivery of Jamabandi at Panchayat level through Citizen Service Centres (LokMitra). It has been a massive exercise over the last 20 years. Started as a true replica of existing Record of Rights (RoR), it got integrated with the Registration process and thereafter, a number of Process Changes (reforms) have been affected in the recent years.

"HimKosh-Integrated Finance Management System" bags CSI Nihilent e-Governance Award 2015

Award: **CSI Nihilent e-Governance Award**

Categ: **e-Governance Initiative**

State: **Himachal Pradesh**

HimKosh provides an online integrated Financial Management System by inter-linking receipt and expenditure data generated at treasuries and release of allocated fund by finance department to their field functionaries with the basic objective of improving Financial Reporting System.

NIC Meghalaya bags three Order of Merit Smart Governance Awards by SKOCH Foundation

Award: **SKOCH- Awards 2015**

Categ: **Order of Merit**

State: **Meghalaya**

Meghalaya state has won the Order-of-Merit Awards 2015 instituted by SKOCH Foundation. National Informatics Centre, Shillong, Meghalaya implemented all these three projects. The award winning projects are:

ICAR Experts SMS Services to Farmers is a messaging/communication facility provided to the stakeholders of agriculture and allied sectors. Information regarding proven farming techniques and technologies are disseminated through this service.

e-Registration of Dealers & e-Amendment, a web-based workflow solution developed for Taxation Department, Government of Meghalaya is to modernize and improve the process of issuing Registration Certificates under VAT and CST to the dealers.

Kiran Tracking System is an online application to help the farmers keep the track and to follow the advisory contents given by the Experts of ICAR (Indian Council of Agriculture Research) regarding up keeping of crops and live- stock from the day of procurement.

Shri K. Rajasekhar won the CeBIT India Digital Transformational Leadership 2015 Award

Award: **Digital Transformational Leadership**

Categ: **Security and Others**

State: **Andhra Pradesh**

Shri K. Rajasekhar, Deputy Director General and the State Informatics Officer, National Informatics Centre, Hyderabad has won CeBIT Award for his contribution in architecting secure e-Governance solutions for DBT.

In the News

Chief Minister's e-Dashboard launched in Haryana

Hon'ble Chief Minister of Haryana, Shri Manohar Lal launched CM e-Dashboard on 4th December 2015. Developed by Government for monitoring key parameters of various departments and online services to ensure effective delivery of services e Dashboard has an effective mechanism for bringing transparency.

The dashboard is accessible to the Chief Minister's Office and its associated departments. Shri Manohar Lal appreciated the efforts of National Informatics Centre Haryana for developing CM Dashboard application in-house.

To begin with, 134 KPIs of 13 online departments and 83 offline KPIs of 14 departments have been incorporated in the dashboard. 14 more departments have submitted their reports, which would soon be incorporated in the dashboard. The KPIs could be G2C, G2G, G2E or G2B services delivered by the organization.

The e-Dashboard application is fully automated and integrated with departments having electronic database and applications. Those not having computerized backend database for services are required to manually feed in data to the e-Dashboard at regular intervals till computerization of their database and services.

The e-Dashboard pulls data from various departmental database and online applications, and then calculates performance based on pre-defined formula for each KPI. A composite score for each of these KPIs is then calculated and indicated on the dashboard. Average composite score for all KPIs of an organization, which is calculated on a 0 to 100 scale, shows the overall efficiency of the organization and are reflected through colour coding system.

Hon'ble CM, Shri Manohar Lal inaugurating the e-Dashboard

A team of NIC Haryana under the guidance of Sh. Ghan Shyam Bansal, SIO Haryana, has developed the Dashboard. Additional Chief Secretary, Electronics and IT, Mrs. Keshni Anand Arora also appreciated the team for developing this e-Dashboard, which is first of its kind in North India.

DEEPAK SAWANT, HARYANA

Launch of Web Based Himachal Pradesh Online Treasury Information System (HPOLTIS)

Chief Secretary to the Government of Himachal Pradesh, Shri P. Mitra formally launched Web Based Online Treasury Information System (HPOLTIS) which is an integral part of "HimKosh - Integrated Financial Management System (IFMS)" on 3rd December, 2015 at Dharamshala. On this occasion, the Chief Secretary emphasized that the State Government is committed to bring transparency in the Government system. He congratulated the teams of Finance Department and NIC Himachal Pradesh for their involvement in the development and implementation of the project. Further he appreciated IFMS, which is providing a seamless interface with internal stakeholders and an efficient mechanism of electronic information sharing with external stakeholders of the Finance Department. This meets the objectives of Government to have efficient, effective, reliable, secure and transparent IFMS, which provides information on a real time basis. This further helps in improving the functioning of the fields of Plan, Budget, Revenue, Expenditure and Accounting to all stakeholders and remains consistent and sustainable for long term. Dr. Shrikant Baldi, Additional Chief Secretary (Finance) also appreciated the efforts of NIC Himachal Pradesh in development of the project.

Developed by NIC Himachal Pradesh, HPOLTIS is an integral part of HimKosh. HimKosh consists of several sub-systems that plan, process and report public financial resources. The basic sub-systems include accounting, budgeting, cash management, debt management and related core treasury systems. GoHP have also chosen to enhance IFMS with non-core sub-systems like e-Salary, e-Pension, e-Vitran and national pension scheme (NPS) covering 1.98 Lakh employees, 1.12 Lakh Pensioners, 4600 DDOs, 86 HODs, 0.50 Lakh NPS Employees and 102 Treasuries (16 Treasuries+85 Sub-Treasuries+1 Cyber treasury). A number of Mobile Apps on Android, iOS and windows platforms supplements and help the employees to easily access the respective financial information.


Shri P. Mitra, Chief Secretary, Himachal Pradesh, Dr. Shrikant Baldi, ACS (Finance) along with other senior officers during the launching event.

SANDEEP SOOD, HIMACHAL PRADESH

e-Office at State Transport Authority, Odisha, Cuttack launched

e-Office for the State Transport Authority (STA), Odisha, Cuttack was launched at the Conference Hall of STA by the Secretary, Department of Administrative Reforms & Public Grievances, Government of India, Sri Debendra Choudhury, IAS on 13th November 2015 in the presence of other distinguished guests; Dr. C. S. Kumar, IAS, Transport Commissioner & Chairman, STA and Sri Santh Gopalan, IAS, Chief Executive, CMGI, Odisha.

NIC has developed the product e-Office with an aim to support e-governance by ushering in more effective and transparent inter and intra-government processes. The vision of e-Office is to achieve a simplified, responsive, effective and transparent working of all Government offices.

The Open Architecture, on which e-Office has been built, makes it a reusable framework and standard product amenable to replication across the governments at the Central, State and District level. The product brings together the independent functions and systems under a single framework. Shri S K Panda, SIO & DDG has reviewed and has expressed interest to implement e-Office in other offices.

Secretary DAR&PG, GoI, Shri Debendra Choudhury, IAS at the inaugural session`

A.K. HOTA, ODISHA

'Jeevan Pramaan' launched for Odisha Pensioners at all Treasuries

Hon'ble Chief Minister of Odisha, Shri Naveen Patnaik, on 9th Nov 2015, officially launched Aadhaar enabled Jeevan Pramaan (Digital Life Certificate) for State Government pensioners. Odisha has become the third State / UT Government of the country to implement Jeevan Pramaan, which is an Aadhaar, based Bio-metric enabled digital service for pensioners. This facility would benefit pensioners of Central Government, State Government or other departments of the Government.

Jeevan Pramaan eases the process of getting Life Certificates for pensioners. With its implementation, the pensioners need not have to visit the disbursing agency or the certification authority for establishing the life status.

In Odisha, around 50,000 Pensioners, 165 District treasuries, Special treasuries & Sub-treasuries are benefitted by the implementing Aadhaar enabled Jeevan Pramaan Certificate initiative in the State. To implement this, the NIC Odisha team in coordination with National Jeevan Pramaan team of NIC, New Delhi customized the portal of Jeevan Pramaan.

Hon'ble CM, Shri Naveen Patnaik inaugurating issuance of Jeevan Pramaan

The Secretary of Finance, Govt. of Odisha praised the initiatives taken by NIC Jeevan Pramaan team which is headed by Sri A.K Mohanty (TD & Project Coordinator) for successfully implementing it in the Directorate of Treasuries, Govt. of Odisha, under the guidance of Sri S.K Panda, DDG & SIO, NIC.

A.K. HOTA, ODISHA

VAHAN 4.0 and SARATHI 4.0 launched to aid DTOs in Meghalaya

On 29th October 2015, Meghalaya Transport Minister, Shri HDR Lyngdoh launched the Vahan 4.0 and Sarathi 4.0, online software applications for registration of vehicles and issuance of driving licenses respectively at the Conference Hall, Main Secretariat, Shillong. Both the applications have been designed and developed by National Informatics Centre- Transport Division, New Delhi.

In this new version of Vahan, data entry has been immensely simplified, as only minimal information relating to the vehicle (Chassis number, Engine number, Name and Address of the owner, manufacturer's name and model of the vehicle) is required to be provided. The remaining information is automatically fetched by the application from a central server, where the respective vendors maintain a repository of information of all newly manufactured vehicles, across the country. During registration, information which is provided is verified against those that are registered everywhere in the country. This ensures payment of taxes, in the place where the vehicle was originally registered. This online interface thus allows citizens to avail the different services such as Payment of Road Taxes and Renewal of Registrations from their residence.

Sarathi version 4.0, for issuance of Driving Licenses offer online services, wherein an applicant can apply for Learner's License online from any location, and complete all the required

Meghalaya Transport Minister, Shri HDR Lyngdoh during the launch ceremony along with Shri K S Kropha , Addl. Chief Secretary Transport, Shri Sanjay Singh Gahlout, DDG, HOG (Transport), NIC New Delhi and Shri Timothy Dkhar, STD, State Informatics Officer, Meghalaya

procedures. The applicants need to visit the office of the DTO only for capturing the biometric thumb impression, Signature, Photograph and for verification of documents submitted against the originals. Once this process is completed, Learner's License will be issued with which the applicant can further apply for Driving License later. Meghalaya has now become the fifth State in the country and first in the North East to implement Vahan 4.0 and Sarathi 4.0.

TIMOTHY DKHAR, MEGHALAYA

Workshop on State Projects Management Portal conducted

A training workshop on On-line Project Management System (ePMS) Portal was organized on 12th and 13th Oct 2015 for the Government of Delhi at Delhi Secretariat, Delhi. The program was chaired and addressed by Shri Vivek Mittal, Deputy Secretary, Department of IT, Government of Delhi. 24 participants attended the training workshop.

'ePMS' is an online project management system which tracks various projects involving investment from Rs 1 Cr. to 1000 Cr. The system automates the entire tracking of stalled investment projects in the context of the bottlenecks. Industries can submit their projects with issues after creating their login credentials. When any project with issues is being added by an industry to the State PMG, the portal shall automatically push the data to the respective ministry at the state level. Once the state level nodal officer endorses the project, it shall also be automatically routed to the Central PMG in case of any issues or bottlenecks related to GOI. Industries get immediate response from the automatic mailer and they can see the current status of concerned projects through this platform immediately after the subgroup meeting

Shri Vinod Kumar J and Shri Amar Arora explaining the State ePMS during the Training Workshop.

is over, if the decision is entered online"

The first day of the training program started with an audio-visual presentation and training demo of modules related to sponsoring and recipient ministries by Shri Vinod Kumar. J (Scientist 'B, NIC Informatics Division, Cabinet Secretariat). Shri Vinod Kumar J and Shri Amar Arora provided the hands-on training for the Sponsoring Ministry Module, Recipient Ministry Module and Monitoring Ministry Module

The second day of training session for Admin module of ePMS was demonstrated. In the technical session, requirement for admin module, functional role and responsibility were elaborated in detail followed by hands-on session for the Admin users.

DR. SHUBHAG CHAND, DELHI