In Focus

Human Resource Management System

- Dr. N. Seshagiri Memorial Lecture
- Odisha State
- Namsai, Arunachal Pradesh
- South Tripura District
- ICT Election Applications
- Antyodaya SARAL Haryana
- Jal Shakti Application
- API Management Solution at MyGov
Technology is a key enabler for greater efficiency and cost effective solutions. Many governments globally have gained tremendously with the introduction of digitization, automation, electronic workflow systems etc. The Human Resource function specifically has been a significant beneficiary of the automation & simplification of processes such as hiring, inventorizing skills, payroll and performance & knowledge management. The effective implementation of technology in the Human Resource function can ensure satisfied employees, who in turn become empowered to deliver greater value addition to the organization goals.

Digitization enables transparency, and technology can be deployed to ensure availability of data to authorized personnel anytime, anywhere. An efficiently thought-through Human Resource system can allow the organization to avail advantages such as planning of leaves, scheduling resources for smooth operations & project tasks and allocating appropriately skilled personnel on critical assignments.

Realizing there are huge gains inherent in the implementation of a Human Resource system, NIC has developed a high-end automated solution i.e., eHRMS (electronic Human Resource Management System) to help enhance work efficiency in Central and State Government organizations. Channelizing personnel management through electronic service record, eHRMS facilitates multiple operations under one umbrella, wherein both organizations and employees can perform functions on their respective dashboards. Gain more insights into eHRMS in this Issue of Informatics. This Cover Story will prove helpful for readers as they chart on addressing challenges in the HR domain.

Commemorating the contribution of the Founder Director General of NIC and former Special Secretary to the Government of India, NIC organized the first edition of Dr. N. Seshagiri Memorial Lecture in New Delhi. Marked with an exclusive lecture by Dr. Narayana Murthy, Founder, Infosys Limited, the event recalled pioneer efforts of the Great Visionary who led the building of India’s IT industry. The Spotlight section of this Issue brings to you a detailed story.

NIC e-Governance projects in the State of Odisha have been focused in From The States section. District Informatics section highlights ICT advancements in East Champaran District of Bihar, South Tripura District of Tripura and Namsai District of Arunachal Pradesh. Articles covered in the e-Gov Products & Services section are Jal Shakti Application, Antyodaya SARAL Haryana and ICT-enabled Election Applications Management in Tirap. Appscape details eight Apps introduced for citizens and specific authorities. International e-Gov Update, In The News and Accolades sections also bring to you some interesting reads as always.

We constantly strive towards offering an enriching reading experience to our readers. Your support in the form of suggestions and feedback will be highly appreciated. Please do write back to us at editor.info@nic.in.

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NIC organizes the first edition of Dr. N. Seshagiri Memorial Lecture
Paying tribute to a legend who revolutionized Information Technology in the country

Commemorating the contribution of a Great Visionary who pioneered the growth of the country's IT Industry, National Informatics Centre (NIC) organized the first edition of Dr. N. Seshagiri Memorial Lecture at Vigyan Bhawan, New Delhi on 5th August 2019 wherein an exclusive lecture was delivered by the Guest Speaker, Dr. Narayana Murthy, Founder, Infosys Limited.

Shri Sanjay Shamrao Dhotre, Hon’ble Minister of State, Human Resource Development, Communications and Electronics & Information Technology, Shri Ajay Sawhney, Secretary, Ministry of Electronics & Information Technology, Dr. Neeta Verma, Director General, NIC and Dr. Savita Dawar, Deputy Director General, NIC were present on the occasion.

The founder Director General of NIC and former Special Secretary to the Government of India, Dr. Seshagiri was the architect of the nationwide computer network (NICNET) and drafted the Software and Hardware policies that revolutionized Information Technology in the country.

After lamp lighting ceremony by the guests, Shri Ajay Sawhney spoke about the significant role played by Dr. Seshagiri in leading the adoption and promotion of technology in various parts of the government.

Lauding the contributions made by Dr. Seshagiri to the field of ICT, Dr. Narayana Murthy outlined that he combined academic excellence, administrative acumen and sense of alacrity in decision-making. Having remained a contemporary of Dr. Seshagiri, Dr. Murthy highlighted that he served in various functions responsible for the acceleration of Electronics and Information Technology in the government, public and private sectors.
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Symbolizing a token of appreciation, a memento was presented by Shri Sanjay Shamrao Dhotre to Dr. Murthy for delivering the lecture. Smt. Usha Seshagiri, wife of Dr. Seshagiri, was also honored by Dr. Neeta Verma.

A speech was delivered by Smt. Supriya, daughter of Dr. Seshagiri. Paying tribute to Dr. Seshagiri in her concluding remarks, Dr. Neeta Verma gave the Vote of Thanks.

It is noteworthy that Dr. N. Seshagiri was instrumental in setting up of the Software Technology Parks of India, which led to the emergence of Indian IT bellwether. With his great personal appeal, he succeeded in putting in together a team of bright young engineers at NIC, the best that were available in India at that time and who later became leaders in the field. He helped in creation of an infrastructure and environment where young members are able to make their best contributions. This large nationwide organization has played a key role in the computerization of administration and operations of the government and utilities of the country. This also helped in the process of national integration.

By SHASHI KANT PANDEY, NEW DELHI
The advent of National Data Centre (NDC) in Bhubaneswar by the Government of India and the adoption of 5Ts (Technology, Teamwork, Time, Transparency and Transformation), the new concept of service delivery by the Government of Odisha, jointly give a tremendous thrust on e-Governance service delivery in the State. Being the leading technology partner and ICT solution provider to the Government, NIC Odisha is determined to bring the best ICT solution for citizens. Since its inception in 1985, NIC Odisha State Centre in Bhubaneswar (designated for many years as one of the four regional centres of NIC) has been working with firm commitment to deliver ICT solutions and support to the Government of Odisha in accordance with expectations of the people of Odisha to see their state maintains its top-slot in implementation of ICT based e-Governance solutions in the country. Setting up of National Data Centre in Bhubaneswar by the Government of India and the adoption of 5Ts (Technology, Teamwork, Time, Transparency and Transformation), a new citizen-centric service delivery concept by the Government of Odisha, has given a fresh impetus to NIC Odisha to set its new voyage towards helping the State in its ICT endeavors.

STATE PROJECTS

Agriculture Sector

NIC, being the technology partner of the Department of Agriculture and Farmers’ Empowerment, Government of Odisha, has helped the department in undertaking a complete process re-engineering of the schemes, which has resulted in streamlining of various processes involving multifarious inputs. A centralized Farmer Registration System has been developed with information about 24+ lakh farmers with their validated registered bank account details.

ICT applications developed by NIC Odisha facility, in the domains of Farm Mechanization, Solar Pumps Set Distribution, Cluster River Lift, Jalanidhi (Shallow Tube Well, Bore Well), Mukhya Mantri Krushi Udyoga Yojana etc., are integrated with the centralized Farmer Registration System and Direct Benefit Transfer (DBT) System for farmer’s identification and subsidy disbursement. A licensing system has been designed for seed, pesticide and fertiliser for facilitating the sale of all notified seeds, Central Insecticide Board (CIB) registered pesticides and Fertiliser Control Order (FCO) notified fertilizer at GP level. A mobile-based pest advisory with e-pest surveillance and crop weather watch-group system has been designed for rendering better services to farmers. NIC Odisha has developed a complete end-to-end integrated system covering all the six verticals of seed arena providing a holistic ecosystem to the seed domain. NIC Odisha team also rendered support to Uttarakhand and other states in replicating two verticals of the seed system.

The contribution of NIC Odisha in the realm of the State’s e-Governance space has been significant and to a great measure, it has been instrumental in overall growth of ICT in the State. With ever increasing surge in demand for digital services, the capability of NIC and its recalibrated effort as per the State’s mandate both in service delivery and underlying automation would be of immense help.

"The State Administration is pushing technology as part of 5T Mantras in every sphere of governance. With adoption of NextGen Technologies in governance such as Data Analytics, Security, Cloud and Mobile Computing, Odisha is sure to leap frog to a different league. I am sure NIC would continue to play a pivotal partnership role with Odisha Government in its efforts to perform, reform and transform." 

ASIT TRIPATHY, IAS
Chief Secretary
Government of Odisha
Mobile Apps Developed
- Odisha State Seeds and Organic Products Certification Agency (OSOPCA) Inspection Mobile App
- Automation System of Seed Certification for Uttarakhand (ASSCU) Inspection Mobile App
- Farm Mechanisation
- Solar Pump Set Distribution
- Jalanidhi
- e-Pest Surveillance

Awards and Accolades
- CSI Nihilent e-Governance award
- National e-Governance (Silver) award

Education Sector
School Monitoring
A School Monitoring Application has been launched to achieve five objectives, namely Monitor schools based on parameters covering remediation, academics, school operations, infrastructure, attendance and assessment, Resolve issues identified during monitoring, Regular reviews at Block, District, State level to ensure objectives are met and solve at scale the common issues across schools, Conduct real-time assessment to gauge learning levels of students to track improvement, and provide real-time feedback.

Mobile App: School Monitoring App e-Counseling
NIC Odisha extends ICT support to Odisha Joint Entrance Examination (OJEE) Committee on conducting entrance examination and counseling-cum-admission for all undergraduate and postgraduate technical/ professional courses. In addition to OJEE, NIC is providing technical support to the Directorate of Technical Education and Training for counseling-cum-admission to Post-Diploma in Industrial Safety (PDIS), and Swami Vivekananda National Institute of Rehabilitation Training & Research (SVNIRTAR) for counseling-cum-admission to undergraduate and postgraduate courses.

Energy Sector
EDSoft
EDSoft is developed for online collection and monitoring of Electricity Duty (ED) of Captive Power Plants (CPP), which radically enhanced collection of electricity duty. The system deals with consumer database, calculates electricity duty, facilitates e-payment, monitors arrears, exemption, export grants etc. For the financial year 2018-19, Rs. 27,23,17,68,337 have been collected through e-Challan.

ELBSof
This web-based system equips Electrical Licensing Board of Odisha with an appropriate ICT tool to develop contractors, supervisors and electrical workmen database, issue/ renew/ cancel licenses, facilitate e-payment, conduct examinations and publish result over the portal bringing in transparency in the system. It has also made validation/ cross checking of the licenses etc., possible.

Excise Sector
ExciseSoft
Real-time automation of Liquor Supply Chain Management System of Odisha State Beverages Corporation Limited (OSBCL), Department of Excise, Government of Odisha, is an integrated web-based platform to regulate the distribution of liquor in the State.

Achievements
Number of permits generated: 88,013
Excise Duty collected:
Rs. 97,05,16,57,032
Sale: Rs. 99,55,73,12,616
Value Added Tax: Rs. 33,70,20,99,170
Tax Collected at Source: Rs. 1,32,00,05,775

Finance Sector
Automation of Local Fund Audit (ALFA)
The system undertakes audit of the government/ all government recognized/ elective bodies, aided schools and colleges and endowment etc. The system has been implemented in 26 District Audit Offices functioning for 30 revenue districts of the State, each headed by a District Audit Officer.

Budget Execution Technique Automation (BETA)
Annual budget, supplementary budget and re-appropriation activities of Odisha are being executed through this application. All statutory documents are being generated in PDF format (bilingual), which are put at the floor of Legislative Assembly for voting. This application has been integrated with Integrated Financial Management System (IFMS) for re-appropriation process as well as for getting data for annual and supplementary budget.

Automation of Small Savings Activities (ASSA)
It is implemented in all the 30 districts of Odisha.

From the States

I am extremely glad to say that application of Information Technologies in the agriculture and allied sectors has been exceptional in Odisha. Starting from Input Management and Input Licensing System to Pest surveillance and Agri-processing have been automated end to end, and thus, giving much-awaited impetus for sustained agriculture development as per the State Agriculture Policy. It is indeed our pride that some of these efforts in transformational change in agriculture have been adopted by other states such as Seed Certification Automation System in Uttarakhand, with visible impact at the national level as well.

As a predominantly agrarian state, I look forward to working with the NIC team to continue using Information Technology tools with an integrated and holistic approach for overall rejuvenation of the agriculture sector.

DR. SAURABH GARG, IAS
Principal Secretary
Dept. of Agriculture & Farmers’ Empowerment
Government of Odisha
the State under the Directorate of Small Savings, Finance Department, Government of Odisha for the automation of small savings activities across the state.

GA Sector

**e-Quarters System**

This automated service has been implemented with a view to allot quarters from Type-I to Type-VI in a time-bound and transparent manner. GA Rent, HRMS and e-Quarters system are integrated through web services. Total 76,947 cases have been received in the financial year 2018-19 and 1008 quarters have been allotted in the system.

**eAbhijog** ([https://cmgodisha.gov.in](https://cmgodisha.gov.in))

This is a State Grievance Redressal portal that so far has received 2,79,705 grievances. It is also noteworthy that 2,75,474 grievances have been processed through the portal. In total, 5,686 offices, which are authorized to receive/forward/redress applications, are covered in the portal.

**GIS services**

**Odisha Geo-Portal**

This portal ([https://gisodisha.nic.in](https://gisodisha.nic.in)) is a multi-layered Geographic Information System (GIS) platform comprising of 37 seamless state-wide base maps, satellite images of varying scales and resolutions aligned as per the global geo-spatial standards. It is an essential component of Digital India Programme to ensure easy, effective and economical governance. These rich data sets are also published in National GIS Portal called BHARAT MAPS using NICMAPS Services ([https://bhаратmaps.gov.in/](https://bharatmaps.gov.in/)), which could be used as service for asset mapping and to provide GIS based decision support system to State Government Departments and District Administrations for delivering citizen-centric services. Using these layers as service, following projects have been successfully developed and implemented:

- District Geo-Portal
- GIS for bore well mapping
- Digital Gender Atlas
- GIS based AAHAR scheme monitoring system
- GIS based Left Wing Extremism (LWE) project for infrastructure mapping

**Housing & Urban Development**

To support e-Governance activities in Housing & Urban Development Department of the Government of Odisha, NIC Odisha has undertaken application development for sectors such as Public Health Engineering Organisation (PHEO) and Odisha Water Supply and Sewerage Board (OWSSB), which works in all the 117 Urban Local Bodies (ULBs) of Odisha. The key e-Governance applications developed for PHEO are Customizable Water Tariff Billing and Payment (WTBP) Application, Acquisition of Water Quality Data And Surveillance (AWQDAS) System for Nine AMRUT Cities of Odisha, Smart Water Information Management (SWIMS) System, Automatic Meter Reading (AMR) based Water Tariff Billing, Estimation of Rates for Evaluation of Water Works and PH Complaint Registration & Management System (CRMS). The strong customizability of WTBP application has enabled its successful replication at Guwahati Jal Board, Government of Assam. Similarly, implementation of various relevant e-Governance applications has been taken up for OWSSB. Initiation of advanced technologies like implementation of IOT for water supply utilities and Data Acquisition System for energy consumption, water and pressure level monitoring has been made to make the processes completely automatic.

**Land Record Project**

**Land Records Management System (LRMS)**

There are many notable citizen-centric services being rendered.

- **No. of Districts**: 30
- **Sub-divisions**: 58
- **Tahasils**: 317
- **Revenue Inspector Circles**: 2274
- **Revenue Villages**: 51,701
- **No. of Khatiyans (Record of Rights)**: 1,61,84,823
- **No. of Plots**: 5,53,07,787
- **No. of Tenants**: 3,44,53,077

eMutation is a transaction and role based workflow system, catering to 15 different types of mutations. Corresponding cadastral map is updated using BhuNaksha software. After successful Record of Rights (RoR) preparation, it is delivered to tenant by speed post, with recording the transit details in LRMS. Public view of RoR is available on Bhulekh Portal.

**Achievements**

Total no. of cases executed: 19,63,758
Total RoRs prepared: 13,78,399

**BhuNaksha**

The Government of Odisha made it mandatory to update the Maps using BhuNaksha for all types of mutations.

**Achievements**

Total no. of plots created using BhuNaksha: 18,69,229

**Bhulekh Portal**

This portal is meant for public viewing of textual record linked with Cadastral Maps for general public.

**Achievements**

Number of hits per day: 80,000+

Other notable activities in Land Record and Revenue sector are:

- Revenue Court Case Monitoring System (RCCMS)
- Online Land Revenue
- Document Management System (DMS)
OSSSC
Integrated Recruitment Management System (IRMS) has been implemented in Odisha Sub-ordinate Staff Selection Commission (OSSSC) to help the Commission to carry out its responsibility of direct recruitment of various Group B & C positions. IRMS is a web portal that helps the Commission to accomplish all the recruitment related activities and provides a back-to-back automation solution across all the pre & post examination and post selection recruitment processes. The application has multilingual features and supports English, Odia and other Unicode languages. Data identified as sensitive by the Commission can be stored in this application in an encrypted form to maintain its confidentiality.

Skill Development Project
Vidyarthi
This is a Student Life Cycle Management System for Diploma and ITI courses of Odisha. It is meant for the State Council for Technical Education and Vocational Training (SCTE & VT) under Skill Development Department. The application covers activities such as enrolment of students, filling up of forms, pre and post examination activities and result processing of diploma students. The system also enables signing of the certificates and mark sheets using Document Signer and pushing them into the DigiLocker.

Achievements
Total no. of Diploma Student Life Cycle maintained: 1,96,605
Total diploma certificates pushed to DigiLocker: 1,21,847

Employment Mission under Odisha Skill Development
Authority (OSDA)
The Government of Odisha gives great importance to skill development of youths which is imparted through a systematic training program. The job seekers register themselves online, undergo training and get employment after successful completion of training. Till to date, 4,16,672 candidates have registered in employment exchange through this portal.

Achievements
87,501 candidates registered, 75,595 completed training and 13,287 youths got employment.

Water Resources Sector
IWRCM
Meant for industrial water consumption and monitoring, the Industrial Water Consumption & Revenue Collection Monitoring System (IWRCM) is a web-based solution that enables industrial consumer base creation, online meter reading, automatic bill generation, payment through treasury payment gateway, over-draw alert and report generation. The system was implemented to help bring in transparency in the system. For the financial year 2018-19, Rs. 446,74,24,190 have been collected through e-Challan towards fees for industrial water consumption.

NATIONAL PROJECTS
DARPAN
Dashboard for Analytical Review of Projects Across Nation (DARPAN) is implemented to equip District Administration with one centralized platform for real-time and dynamic project monitoring by consolidating data from multiple sources of various central and state projects. The projects have been integrated with DM Dashboard through web services for all the 30 districts of Odisha.

eCourts and Judiciary
Implementation of District Court Case Information System National Core 3.1 software application brought automation in case flow and case management in 247 court establishments spread over 119 locations and 583 courts of Odisha. Video conferencing facility has been provided in 57 courts and 58 jails. Information about 23,21,009 court cases and 3,11,921 orders/ judgments are available on National Judicial Data Grid (NJDG). eCourts Services Mobile App and Just-ISMobile App have been launched. District Courts are also equipped with kiosks and electronic display systems. Steps have been taken for implementation of the Interoperable Criminal Justice System (ICJS). IT support is provided to Advocate General, Judicial Academy, Odisha State Legal Services, Odisha Sales Tax Tribunal, Directorate of Public Prosecution and State Forensic Science Laboratory (SFSL) under ICJS.

Mobile App: eCourts and JustIS

e-Prisons
This unique national portal for all the prisons of the country facilitates integrated view of data about crime and criminal history of the prisoners, analysis of various trends and statistics of crime and criminals, secured access to courts, police and other investigating agencies through inmate tracking module, interstate transfer of prisoners etc. e-Prisons has been implemented in 86 jails of Odisha.

e-Hospital
e-Hospital application has been implemented in two major Central Government hospitals, namely AIIMS, Bhubaneswar and Swami Vivekanand National Institute of
Rehabilitation Training and Research (SVNIRTAR), Cuttack. Total number of patients registered in AIIMS, Bhubaneswar is 16,95,973, with an average number of 1,766 patients registered per day. SVNIRTAR has 89,629 patients registered since inception.

**eOffice**

NIC has taken up the initiative of improving the inter-government and intra-government functioning by way of implementing eOffice Lite in various Directorates/ District Collectorate/ Offices of the Government of Odisha, other Government of India Offices/ Public Sector units/ Universities in Odisha. eOffice Lite has been implemented in 34 Offices, while other 8 organizations are under process of implementation. Using eOffice, more than 40,000 electronic files and 3 lakh receipts have been created so far.

**Smart Performance Appraisal Report Recording Online Window (SPARROW)** has been implemented for all the Government of India Group-A Officers posted in the State of Odisha to facilitate electronic filling and submission of their Performance Appraisal Report (PAR)/ Immovable Annual Property Report (IAPR).

**eProcurement**

NIC, as a Technology Partner to the Government of Odisha, has taken up this Mission Mode Project in 2006. Under direct supervision of the Hon’ble Chief Minister of Odisha, massive Government Process Re-engineering exercises were taken up and an AS-IS and TO-BE Analysis report was prepared by NIC team. This report became the base for development of a generic web-based eProcurement project which was later christened by the Mission Team as “Government eProcurement System of National Informatics Centre (GePNIC)”.

Odisha got the distinction to be the first State to implement GePNIC in 2008. After its acceptance by the Asian Development Bank and the World Bank, the project crossed the major milestone with its adoption by National Rural Road Development Agency (NRRDA) for floating tenders for national roll-out of Pradhan Mantri Gram Sadak Yojana (PMGSY) across the states of India. More than three lakh tenders of value more than two lakhs and fifty thousand crores have so far been floated in the State of Odisha through the portal tendersodisha.gov.in.

**Major Recent Award:** National Award for Best Performing State on eProcurement.

**IVFRT**

Immigration, Visa, Foreigners Registration and Tracking (IVFRT) was implemented at Biju Patnaik International Airport on 10th July 2015. Since then, the system is successfully running at Immigration Check Posts (ICPs), and PAX clearance and managing Unique Case File (UCF) and Centralised Visa (C-Visa) are undertaken by IVFRT system.

**Kaushal Panjee**

Kaushal Panjee ([https://kaushalpanjee.nic.in](https://kaushalpanjee.nic.in)) is a Mobilization Tool for Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY), a scheme of the Ministry of Rural Development, Government of India. The application aims to enable unemployed rural youths to register for skill upgradation on various trades. More than 2.3 lakh youths have registered so far in the State, out of which, 7,715 youths have been trained and 14,872 youths are undergoing training.

**Mobile App:** Kaushal Panjee

**ServicePlus**

Enabling delivery of electronic services to citizens, ServicePlus ([https://serviceonline.gov.in](https://serviceonline.gov.in)) is a unified platform based on multi-tenant architecture. Currently, 6 citizen-centric services are delivered on this platform. The Government of Odisha has entrusted NIC to implement eDistrict project on ServicePlus. The process of defining 20 services is almost complete and will be launched soon.

**Transport**

**e-Challan**

Vehicle Checking Reports (VCR) has been replaced by an Android mobile App called e-Challan using the specially designed device called integrated e-Challan device. The App is integrated with central database of National Register of Vahan & Sarathi to fetch registration records of vehicles and driving licenses of drivers instantly. Transport Commissioner, Odisha, has issued office order to stop issuance of manual challan (VCR) and use the eChallan App from 1st December 2018. Accordingly, sufficient number of eChallan devices has been provided to all Regional Transport Offices (RTOs) to issue to enforcement officers under their control.

**Mobile App:** mParivahan

For best ICT service support, NIC officials have been deputed at the Hon’ble Governor’s House, Odisha High Court, State IT Centre and Odisha State Data Centre.

**Summary**

NIC Odisha has been supporting all the major government departments and all 30 District Administrations of Odisha in providing various ICT services, and at the same time, it is playing the role of a technology consultant to the Government. NIC Odisha is among the pioneers in adoption, implementation and management of advanced ICT based time bound projects to help the Government of Odisha meet the expectations and aspirations of its citizens. NIC Odisha is technically prepared to fulfill the visions of Digital India.
District Informatics

East Champaran District, Bihar
Instrumental in leading technological advancement through wide promotion of ICT services

Besides implementing a number of citizen-centric services in the District and promoting Digital India Programme, NIC East Champaran is also involved in providing G2C/ G2E services through District web portal, and bringing in ICT culture and implementing innovative technological solutions.

The Headquarters of East Champaran District is located at Motihari. Presently, East Champaran consists of 6 Sub-divisions, 27 Blocks/ 27 Circles, 2 Nagar Parishads, 7 Nagar Panchayats and 1344 Villages with 405 Gram Panchayats. NIC District Unit, East Champaran (Motihari), since its inception in 1988, has been instrumental in the promotion of ICT usage in the District and working tirelessly in the implementation of various State and Central e-Governance initiatives. In order to support these e-Governance initiatives, NIC District Centre is equipped with state-of-the-art NICNET infrastructure comprising of 34 Mbps leased line connectivity, which works as the backbone of network connectivity for different offices of the District Administration.

As the District Administration is considered to be one of the most important delivery channels for delivering government services to the public, Champaran District Administration and NIC District Unit have jointly initiated and implemented innovative ICT based citizen-centric services including Digital India Programme through District web portal.

ICT Initiatives in the District

District Web Portal
East Champaran (Motihari) District has now a revamped bilingual website (https://eastchamparan.nic.in/), built on Secure, Scalable and Sugamya Website as a Service (S3WaaS) framework. Compliant with the Guidelines for Indian Government Websites (GIGW), the website features enhanced user-friendly functionalities and interfaces and follows standard website norms and robust security standards. The website gives a snapshot of the administrative, historical and geographical background of the District. It also promotes various tourist attractions of the District. General public can seek information and avail government services provided by different departments such as Revenue, Transport, Health and Agriculture.

NKN, Video Conferencing
National Knowledge Network (NKN) has been implemented at the Mahatma Gandhi Central University at Motihari and is connected by 1 Gbps connectivity. NIC East Champaran provides video conferencing facility to organize review meetings, trainings and Central Information Commission hearings.

Recruitment & Training
Necessary IT support is being provided to NIC District Unit, East Champaran has been instrumental in the promotion of ICT usage and implementation of State and Central e-Governance initiatives, sharing of information through District website, providing computation support during General Election etc., which have been quite commendable.

I believe NIC will keep up this good work and continue to provide technical support for successful implementation of ICT Services for the benefit of citizens.

RAMAN KUMAR, IAS
District Magistrate & Collector
East Champaran (Motihari)
the District Administration in the recruitment processes of Executive Assistants and conducting computer skill tests for creating technical workforce in the District. Computer awareness cum capacity building training programmes are also undertaken regularly to facilitate effective implementation of ICT projects and e-Governance applications.

**Election Computerization**

NIC East Champaran was actively involved in providing ICT support during the General Election and helped in implementing ELECON 11.0, Force Deployment System, EVM Tracking, Genesys, ERO NET, ECI Counting Application and Poll Day Monitoring System, and thus, contributed in successful completion of election process. NIC also assisted the District Administration on poll day to ensure that poll day related information is timely transmitted to the Election Commission of India, including NICNET connectivity at District Control Room. Webcasting from the selected 10% Polling Booths was also carried out and monitored from the control room.

**Aapada Sampoorti**

Aapada Sampoorti online system of NIC Bihar State Centre is being implemented for distributing flood relief to around 3.9 lakh beneficiaries using Public Financial Management System (PFMS) platform. The system is expected to transfer around Rs. 8.3 crore to flood victims of the District. Upto August 2019, about 1.37 lakh beneficiaries have been disbursed payment through the system.

**E-Kalyan**

E-Kalyan portal, developed by NIC Bihar State Centre, which is integrated with PFMS platform, has been implemented for various schemes:

- Parvarish Yojana and Kanya Uthan Yojana of Social Welfare Department
- Civil Seva Protshahan Yojana and Chatrawas Anudan Yojana of SC/ST Welfare Department
- BC/EBC Welfare Department: Civil Seva Protshahan Yojana and Chatrawas Anudan Yojana of BC/EBC Welfare Department
- Minority Welfare Department: Muslim Paritykta evam Talakshada hetu Anudan Yojana and Chatrawas Anudan Yojana of Minority Welfare Department
- Annual Medical Assistance of Labour Resources Department
- Mukhyamantri Kanya Utthan Yojana (Madhyamik+2) of Education Department

Under the umbrella of Digital India Land Records Modernization Programme, ‘Online Mutation’ has been implemented in all 27 circles of the District. Under this scheme, citizens can file their applications either at circle office or through online portal i.e., http://biharbhumibihar.gov.in/. Online lagan collection has also been implemented in all 27 circles of the District. Bhu-Manchitra, a software tool for secure dissemination and printing of village maps in A0/A1 size, is another major G2C service being extended to the citizens.

Other digital initiatives implemented by
NIC District Centre, East Champaran are ebihPAR, ServicePlus, ePDS, Prison ERP/ePrisons, eProsecution, Immigration, Visa and Foreigner's Registration & Tracking (IVFRT), National Database of Arms License - Arms License Issuance System (NDAL-ALIS), Vahan 4.0, Sarathi 4.0, e-Challan, E-Kalyan, e-Courts, Mukhyamantri Gramin Peyjal Nishchay Yojana (MMGPNY), Smart Performance Appraisal Report Recording Online Window (SPARROW), National Scholarship Portal Version 2.0 (NSP-2.0), ERO-Net, eForms (an online platform for NIC services), Swachh Bharat Mission (Gramin) and Lohiya Swachh Bihar Abhiyan (LSBA), Online Farm Mechanization Application Software (OFMAS), Reproductive and Child Health Programme (RCH), Confonet, Online Jamabandi Application, Aangan Bihar & Aangan Sevika App, Paddy Procurements and PACS Members’ Society Registration (ePACS), Gramin Awas Inspection App, Pradhan Mantri Fasal Bima Yojana for Rabi Crop Survey, Bihar Rajya Fasal Sahayata Yojana, Invigilator Deputation System etc.

Technical support by NIC District Centre during Chalo Champaran Event

NIC District Centre Motihari provided technical support to the District Administration during the visit of the Hon’ble Prime Minister, Shri Narendra Modi on the occasion of Chalo Champaran event, Satyagrah se Swachhagrah, on 10th April 2018. As part of the event, On 9th April, a day before the Hon’ble Prime Minister’s visit, an IT Cell was set up by NIC Motihari at the PMO Tent Camp at Gandhi Maidan Venue, Motihari.

Awards and Accolades

- Award to NIC East Champaran for exemplary performance on ICT initiatives by District Administration on 2nd October 2018
- Digital India Award 2018 - Web Ratna Silver for East Champaran District Website

Summary

In its glorious journey towards a Digital District, NIC District Centre is playing a vital role by providing technical support under the guidance and leadership of Shri Rajesh Kumar Singh, Deputy Director General & State Informatics Officer, Bihar. The proactive role played by NIC has immensely helped District Administration in successful execution of various e-Governance and ICT activities, in line with the objectives of Digital India Programme of the Government of India.

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On a progressive path to excel with ICT support under Aspirational Districts Programme

Since Namsai is one of the Districts chosen across the country under the ‘Transformation of Aspirational Districts’ Programme, launched by Shri Narendra Modi, Hon’ble Prime Minister on 5th January 2018, all-out efforts have been made by the District Administration along with other stakeholders to expedite the development process. ICT is being used comprehensively to drive the programme, and NIC Namsai is rendering the required technical support with full efficacy.

Located in the state of Arunachal Pradesh, Namsai District was formed with the third bifurcation of Lohit District on 15th July 2014. NIC Namsai started its operations from the month of May 2018 and since then, it has been providing noteworthy ICT support to the District Administration to develop under the Aspirational Districts Programme. Namsai is one of the Districts selected across the country under this programme through convergence, collaboration and evoking a healthy competition among the districts in five developmental focus areas: Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development and Basic Infrastructure.

The progress of the Aspirational Districts is being monitored by NITI Aayog on real-time basis through its dashboard, the “Champions of Change” (http://championsofchange.gov.in). The District Administration has entrusted NIC Namsai with the responsibility of managing dashboard activities specific to the District, including handling of incoming data of various Key Performance Indicators (KPIs), submitted by various departments/ agencies on monthly/ quarterly/ half-yearly/ yearly basis, which it has been doing diligently.

Initiatives under the Aspirational Districts Programme

The Aspirational Districts Programme started in the District in March 2018, and several initiatives have been taken up by the District Administration to speed up the development discourse since then.

Prior to its implementation, several rounds of discussions and meetings were held to find out ways and means on how to go about implementation of the Programme. On receiving directions from Dr. Neeta Verma, Director General, NIC, to extend full technical support to the District Administration in terms of e-Governance activities for the programme, a team from NIC State Centre, Itanagar, Shri Debasish Nath, ASIO (East) and Shri Tasso Habung, ASIO (West), including Shri C. W. Namshoom, Additional DIO of NIC Roing, NIC Namsai has been effectively providing ICT support to the District Administration. It has rendered excellent technical support to the District Election Machinery during the Simultaneous Elections 2019. The District Administration has implemented various Central and State level ICT projects like Vahan 4.0, Arunachal eServices, S3WaaS enabled District Website etc., with the active support of NIC Namsai. This has enabled the District Administration in providing transparent, effective and efficient citizen-centric services to the common people of Namsai District.

I wish NIC Namsai all the success in its endeavors to drive and implement many more e-Governance projects in the District.

BIJOY TALUKDAR, APCS
Deputy Commissioner
Namsai District, Arunachal Pradesh

Chow Willa Namshoom
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Images: [Chow Willa Namshoom](http://champi-... | [ASIO (West), including Shri C. W. Namshoom](http://champi-... | [District Administration to discuss e-Governance... | [Aspirational Districts Programme  in the... | [The Aspirational Districts Programme... | [The progress of the Aspirational Districts... | [The District Administration to develop under... | [One of the outcomes of the meeting was... | [The Ranking of these rankings, Namsai District secured... | [Apart from feeding, storing... | [The Data Centre is an integral part of... | [All the data-centric activities are carried... | [Due to the increasing number of data coming from implementa-... | [The District Administration will leverage the use of ICT in expediting... | [The team from NIC state Centre, Itanagar, Shri Debasi... | [The team from NIC State Centre, Itanagar, Shri Debasish N... | [The team from NIC State Centre, Itanagar, Shri Debasish Nath, ASIO (East)... |
who is the present DIO of Namsai, visited the District HQ Namsai in February 2018. A meeting was convened with the District Administration to discuss e-Governance requirements of the District under this initiative and the way forward.

One of the outcomes of the meeting was to leverage the use of ICT in expediting and monitoring the progress of the Aspirational Districts Programme in the District. Taking it forward, the District Administration has initiated the development of various online MIS software applications including Mobile Apps to track the progress and constantly record numerous data coming from implementation of various initiatives/ schemes like School data through HAMARA VIDYALAYA & TIFINS, Health and Nutrition data through AROHAN, Household & Agriculture data through BASELINE SURVEY, Financial Inclusion data from BANKS, and Infrastructure development data from WORK AGENCIES at different periodicity. These data will play a crucial role in ascertaining rate of progress, future planning and shaping the developmental discourse of Namsai District. One of the notable ICT initiatives taken up is the development of a Mobile App called Yathasarvam, which will be a one-stop solution to ensure quality education for students through integration of technology, with a focus to ensure continuous monitoring and accountability.

All the data-centric activities are carried out at a Mini Data Centre specially established under the Aspirational Districts Programme by the District Administration. The Data Centre is an integral part of the District Planning Unit connected to NIC District Centre Namsai. It is under the supervision of District Informatics Officer, who is also the Dashboard Officer of Aspirational Districts Programme. Apart from feeding, storing and analyzing data, the Data Centre will also serve as a Skill Training Centre on computer education & IT.

Each Aspirational District needs to feed data of KPIs collected from various departments/ agencies in it on monthly/ quarterly/ half-yearly/ yearly basis. Based on the incremental progress made by the Districts from a month to the next, overall DELTA ranking and ranking of individual sectors is assigned to the Districts. In one of these rankings, Namsai District secured the first rank in education sector among the 117 Aspirational Districts in the country and was financially awarded by NITI Aayog. The ranking was based on the incremental progress made from February-March 2019. A complimentary letter from CEO, NITI Aayog, was also received in this regard.

Summary

In order to meet the broad objective of the Aspirational Districts Programme and address specific development needs of the District to bring it at par with the best performing District in the country by the year 2022, more grassroots initiatives will have to be taken up in the focus areas. NIC Namsai will provide its best possible support to the District Administration in achieving this goal through the extensive use of ICT and e-Governance initiatives.
South Tripura District
Rising up to challenges and leaving impact through futuristic e-Governance solutions

Since its inception in September 2014, NIC South Tripura has been playing a pivotal role in facilitating an efficient e-Governance infrastructure and providing ICT-enabled services to the citizenry. The implementation of digitally empowered services such as eDistrict, Vahan & Sarathi, Land Records/Registration and ePDSS has enabled District Authorities to conduct operations smoothly, and it has eased the lives of citizens.

The newly bifurcated District, from erstwhile undivided South Tripura, came into existence in January 2012 with its District Headquarters at Belonia. It comprises of 3 Sub-divisions (Belonia, Sabroom and Santirbazar), 8 Rural Development Blocks, 169 Gram Panchayats, total population of 4,53,079 and an international boundary of 401 KMs with Bangladesh.

The District houses 2 Integrated Check Posts (ICP) at Sabroom and Muhurghat for trade with Bangladesh and is home to attractive tourist places such as Pilak (an ancient archaeological site of Stupas and Sculptures), Trishna Wild Life Sanctuary and Butterfly Eco Park.

ICT Initiatives in the District

District Web Portal

The South Tripura District Portal (https://southtripura.nic.in) has been revamped by implementing the Secure, Scalable & Sugamya Website as a Service (S3WAAS) platform, which is built on Open Source Technology stack. The platform ensures compliance with the Guidelines for Indian Government Websites (GIGW) and compliance matrix. The citizenry gets an integrated search capability in the portal itself, enabling easy discovery of content of interest. The themes and templates of S3WAAS are compliant with responsive design so that the citizenry can access content across different digital devices.

e-District District Services (G2C, G2B, G2G)

The State Mission Mode Project i.e., e-District is being implemented in the District as a part of state-wide rollout. 25 End-to-end citizen-centric services pertaining to Caste, Residency, Income, Survival Certificates and RTI have been activated at District and sub-district level till date. 60,119 various types of certificates have been delivered till date. The Sub Divisional Magistrate and District Magistrate can monitor the progress and pendency list through various reports integrated in the application for timely delivery of services to the citizenry.

NIC’s ServicePlus framework is being leveraged in e-District project for service delivery, which is integrated with eGRAS online Payment, CSCs, Aadhaar OTP, DigiLocker, UMANG & RAS feedback, the essential components in the service delivery ecosystem, advocated under Digital India.

The NIC District Unit has always played a pivotal role in channelizing powers of e-Governance to people in this District. Utilizing IT initiatives for better governance has always been one of the top priorities of the District. As an important initiative, the District website provides all the relevant and important information about the District, notices and schemes of the government. The District website has been awarded the Special Mention Award under Web Ratna District (North East) in Digital India Awards 2018. I sincerely appreciate the efforts put in by the NIC District Unit officials.

DEBAPRIYA BARDHAN, IAS
District Magistrate & Collector South Tripura
Vahan & Sarathi
VAHAN 4.0 (comprising 23 G2C services like vehicle registration, transfer of ownership, issuance of challan, fitness certificate, settlement of penalty etc.) and SARATHI 4.0 (comprising 26 G2C services like issuance of smart card based learners driving license, NOC etc.) have been implemented. 21,619 vehicles have been registered, 1336 permits have been issued, 17,220 smart-card-based driving licenses have been issued and Rs. 7.32 crore have been collected as fees till July 2019 since inception of the projects.

Land Records and Registration
e-Jami and Tripura Online Registration System (TORS) Application have been implemented by NIC for maintenance of Land Records and Land Registration System. TORS has been integrated with eGRAS based Online Payment Platform for the payment of registration and other related fees. Citizen-centric e-services under e-Jami include application for mutation (by deed/ survival), mutation status, khatian/plot based search, deed status, plot unit conversion, fee calculation, land survey, revenue case monitoring and map access.

TORS facilitates e-services like deed verification, scanning, delivery & registration, monitoring & disposal of pending mutations and monitoring of revenue collection.

Since inception, 1,47,014 number of total khatians have been registered, 30,430 notices have been issued, and 28,786 mutations have been executed in e-Jami. In TORS, total 18,883 deeds have been registered and Rs. 14,03,57,983 revenue (as stamp duty+processing fee+registration fee) has been collected.

Computerization of Targeted Public Distribution System
Beneficiary and Supply Chain Management, along with Fair Price Shop Automation, has been comprehensively implemented in the District, as a part of state-wide rollout, in 233 Fair Price Shops (FPS) and 8 godowns, covering 68,792 beneficiary families.

Election
The District Centre had implemented NIC’s Election Personnel Deployment System for randomization of Polling Personnel during Elections like State Assembly 2018, Lok Sabha 2019 and Local Bodies Election 2019. The Election Commission of India’s (ECI) IT initiatives for pre-poll day activities, cVigil, Suvidha, EMS, ETPBS and ERONET were comprehensively implemented.

e-BloodBank

e-BloodBank Application and Android Mobile App have been implemented for information on the availability of blood for any specified blood group at the nearest hospital, focusing two government hospitals of Santirbazar and Belonia.

PM Kisan Portal
The project has been implemented in the District and 29,164 small & marginal farmers have been benefitted.

NIC Core G2G Services (Email, SMS, Video Conferencing, NICNET-NKN)
The District comprises of 12 State Wide Area Network (SWAN) Point of Presences, 100 Mbps National Knowledge Network connectivity with NIC State Centre and 2 Tripura State Wide Area Network (TSWAN) links (4 & 10 Mbps), connecting with neighboring Gomati District HQ. Text messaging (NICemail, SMS), video conferencing and internet services are being provided to various stakeholders.

Awards and Accolades
- “Special Mention Award” was presented to South Tripura District website under “Web Ratna - District (North East)” category in Digital India Awards 2018 held in New Delhi.

Summary
NIC South Tripura District Centre is providing efficient and total ICT support to the District Administration, field level offices of the State Government and Central Government in the District and committed to work towards transforming Tripura into Digital Tripura as envisioned by Shri Biplob Kumar Deb, Hon’ble Chief Minister of Tripura. NIC South Tripura is the key e-Gov Apps implementer to accomplish the goal of delivering impactful e-Governance services to citizens in the District. NIC, in line with Digital India programme, always strives to extend and achieve excellence in providing e-Governance services and reliable Internet over NICNET/ NKN backbone connectivity to District and Sub-district level offices in the most remote part of India.

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Antyodaya SARAL Haryana
A unified platform ensuring hassle-free & time-bound delivery and tracking of G2C services in the State

Having implemented Antyodaya SARAL, Haryana is the first state in the country to integrate so many schemes and services on one platform. The powerful solution developed by NIC Haryana has channelized the process of bringing about a fundamental behavioral change in the way the government functions, and it has also helped eliminate the role of middlemen for citizens.

The Government of Haryana offers over 600 schemes and services to citizens across more than its 35 departments. Delivery of these schemes and services is an aspect of governance that touches each and every citizen in the State multiple times in their lifetime. Citizens faced the following challenges while trying to avail government schemes and services:

- Lack of awareness of schemes/services and lack of clarity on one’s eligibility for schemes
- Lack of knowledge on where to apply for which scheme/service, given a variety of government touchpoints
- Complex application processes and document requirements encouraging role of middlemen and touts
- Insufficient visibility on the status of applications and no feedback loop after the process completion

Shri Manohar Lal, Hon’ble Chief Minister, Haryana, gave the vision of Antyodaya SARAL (Simple, All Inclusive, Real Time, Action Oriented, Long lasting portal), with an aim to provide a systematic approach to the delivery of schemes and services from government to citizens in the state, under the leadership of Dr. Rakesh Gupta. Dr. Gupta was Additional Principal Secretary to the Chief Minister and is currently the Project Director, Chief Minister’s Good Governance Associates. SARAL involved re-imagining the entire service delivery framework in the state, with citizens at the centre of it.

Key Objectives
- Making all schemes and services available on one integrated online platform
- Ensuring end-to-end processing of applications in an online paperless manner
- Process re-engineering schemes and services to make procedures simple and minimalistic
- Establishing state-of-the-art citizen service delivery centres at District, Sub-division and Tehsil levels
- Ensuring availability of all schemes and services at Atal Seva Kendras
- Clear visibility to citizens (and officials) at all stages on the status of application(s)

Technologies Used
- ServicePlus framework used, which is on opensource stack (Java, Postgres SQL, Linux)
- Dot Net 4.5 framework used for development of SARAL components (dashboard, status tracker, eToken, eTicketing, KMS)
- MS SQL server for SARAL components
- HTML/ Jquery/ JavaScript used for front-end
- NIC SMS gateway and email relay server for alerts

Features

Online Platform

493 Schemes and services cutting across 35+ departments/ boards/ corporations have been brought online on Antyodaya SARAL portal (www.saralharyana.gov.in), which has been built on ServicePlus framework, a product of the National Informatics Centre, Government of India. All the forms of these services and schemes have been built over ServicePlus, in collaboration with the concerned departments. Departments that do not have their own technical teams have been provided with support by NIC Haryana.
for coming onto this platform.

**Citizen Touchpoints**

Following are the key citizen touchpoints:

a. Online through computer/ mobile

b. Government-run 115 SARAL Kendras at District Headquarters, Subdivision and Tehsil levels

c. 8000+ Atal Seva Kendras across the state
d. Citizen Facilitation Centres being run by urban local bodies

**Antyodaya SARAL Dashboard**

A tech-enabled system has been developed that allows department officials as well as public to view compliance with Right to Service (RTS) timelines at state and district level. It provides inter-district, inter-department and inter-service comparison of RTS performance, along with Bottleneck Report of a service and pending/ completed applications within or outside RTS.

**Saral Tracking System**

The transaction data from SARAL portal and other departmental portals are aggregated at Tracking Server, and the status is shown in a graphical way, along with action history and RTS timeline such as e-commerce website. This portal is helpful to helpline operators who respond to the queries raised by citizens regarding the status of applications.

**eToken System**

A centralized eToken Management System has been implemented for crowd management at SARAL Kendras. Each token contains information about service, fees, RTS timeline, list of supporting documents, token number, date & time, kendra name etc. All services are available at all the counters. One or more display screen has been set up at waiting areas of kendras for display of token number.

**Antyodaya SARAL Ticketing System**

The ticketing system allows helpline operators to raise citizen queries/ grievances to departments/ districts. These tickets get auto assigned to the departments’ nodal officers, based on the category, who can forward it to the designated officer to resolve tickets.

**Antyodaya SARAL Knowledge Management System (KMS)**

To educate citizens about schemes/ services, a comprehensive KMS with document repository has been developed by NIC Haryana. It includes eligibility, benefits, supporting documents, fees and RTS timeline.

**Antyodaya SARAL Toll-free Helpline (1800-2000-023)**

In order to guide citizens and address their grievances/ queries about schemes/ services, an 80-seater toll-free helpline has been set up, which operates from 7 am - 9 pm from Monday to Saturday.
SMS/ Email based Antyodaya SARAL Alert System
Proactive SMS and emails are sent to each applicant on the change of status. Besides, the Head of Departments and Deputy Commissioners are sent weekly pendency status that cross RTS timelines.

Antyodaya SARAL Feedback System
Feedback about departments and kendras are taken through Interactive Voice Response System at the time of application submission and delivery.

Impact and Benefits
- 493 Services/ Schemes across 37 departments/ boards/ corporations on a single portal
- 12 Departments brought online for the first time
- 96.6% applications processed with 87.6% within RTS timeline (Received - 1,65,27,564, Processed - 1,59,70,652, Within RTS - 1,39,85,148)
- Over 5 crore proactive SMSs sent
- Over 1 lakh calls per month received at helpline
- Over 5 lakh IVR calls per month for feedback with 4.2/ 5 points
- Met all the key objectives defined for Antyodaya SARAL

Way Forward
- The Government of Haryana is working relentlessly towards making citizen service delivery cashless, paperless and faceless in its true sense.
- Auto Appeal System: A centralized auto appeal system has been developed for all services under RTS. In case the RTS timeline is breached, an automatic appeal is filed to appellate authority on behalf of the citizen. There is a provision to impose penalty on officials.

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eHRMS - Human Resource Management System
Digital platform for Personnel Management and Administration from “hiring to retiring”
eHRMS is a step towards enhancing the efficacy and transparency of government organizations by focusing on their employees. This one of a kind application in the spectrum of e-Governance projects aims to harness the capabilities of ICT to improve the way HR processes are carried out. It has been developed with the objective of digitizing the existing service books, creation of new service books for new employees and automation of the updation of service books thereafter for day-to-day processing. The project is a unique initiative as it provides workflow-based solutions for all the HR related services that impact service books. It will cater to approximately 60 lakh employees of the Government of India across various offices throughout the country.

The current system maintains service books in a physical format, which are susceptible to misplacement, damage, loss etc. On many occasions, the service books are not up to date, employee verifications are not regular, and in cases of transfer, the service book is moved to the place of posting after a long time. These issues lead to delay in sanctioning and payment of due benefits, pension etc. Many cases of regularization of leaves etc., received by the department during the tenure of an employee or after many years of their retirement often lead to litigation and uncalled for interest on delayed payments. Such issues impact the employment experience and overall satisfaction of an employee.

The Department of Personnel and Training (DoPT), in its large nodal role, acts as a formulator of policy and ensures that certain accepted standards and norms, as laid down by it, are followed by all the Ministries and Departments. It has issued guidelines for benefit of all the Ministries and Departments, and it monitors the implementation of the same. It also advises all organizations of the Central Government on issues related to personnel management. DoPT entrusted the National Informatics Centre (NIC) to design, develop, roll out and maintain the eHRMS application.

**Key Features**

- **Single source of truth:** The application serves as a single source of employee authentic data and is comprised of the record of complete employee service data during the employee’s tenure, right from joining to retiring.

- **Robust rule engine:** The application has been meticulously designed with the rules and policies laid down by DoPT, governing all HR related services availed by the employees. The rule engine serves as the backbone of the application.

- **Workflow based approval:** The path for approval process can be customized by each department according to organization’s structure and hierarchy. Various routes/paths of approval can be set based on conditions and services.

- **Dashboards:** These provide a comprehensive idea about the breakup of an organization based on parameters such as gender, cadre, salary group, pendency of various applications and rollout status of an application. Users may further drill down to identify bottlenecks and existing issues.

- **Alerts/ Notifications:** The system has a provision for alerts/notifications for employees so that they can check the status of their service applications, and find out that with whom they are pending. The approvers also receive alerts for applications pending at their end.

- **Integration with other applications:** The application integrates with external applications via web services. Integration with the Public Financial Management System (PFMS) has already been completed, and the application also integrates with Bhavishya and Smart Performance Appraisal Report Recording Online Window (SPARROW) system.

- **Email and SMS services:** Email
and SMS services have also been provided, in addition to alerts in the application, to remind employees of applications pending at their level, training that has been assigned for them etc.

Besides these features, the application also serves as a common document repository for employees. It enables ease of sharing information among stakeholders, along with round the clock accessibility.

**Technologies Used**

State-of-the-art technology has been used to develop the robust, workflow-based eHRMS application.

Each activity performed by an employee in eHRMS is treated as a service (for e.g., apply for leave, cancel leave, extend leave etc.). Each service has three layers. First layer is a form to get input from employee, second layer is the service workflow that decides the path to be followed from application request to service book entry. Third layer is the service rule such as CCS rules. Each layer is developed separately and integrated as per the requirement. This makes the software light weight and scalable.

**Front-end Technologies**

- HTML 5
- Cascaded Style Sheets (CSS)
- Java Server Pages (JSP) 2.0
- Java Script and jQuery
- Bootstrap
- Google Charts

**Database**

- Postgres 11

**Languages/ Framework**

- JAVA, J2EE
- Spring 4
- Hibernate 4
- Jasper Report 6

**Security Measures**

- eSign has been used for non-repudiation of data.
- Provision is made for Single Sign-on.
- Secured Socket Layer (SSL) provides network level security.
- Authorization matrix is provided to control the hierarchy of data access rights.
- Provision for maintenance of Data

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In Focus

**eHRMS (electronic Human Resource Management System) is a flagship program of the Government of India being implemented by this Department. eHRMS will digitise HR process, leading to several benefits for the Government employees and also increasing efficiency. It also provides analytics to the senior administration. This will help in policy formulation and implementation. I am glad to inform that eHRMS is now ready for roll-out.**

**Dr. C CHANDRAMOULI, IAS**

**Secretary**

**Dept. of Personnel & Training**
base Logs and Audit Trail have been made.

- Data hashing is also done to enhance security.

**Modules**

All the modules in eHRMS have a robust rule engine and a workflow-based approval process at its backbone. In addition to the various services provided by each module, employee level reports are also available for employees’ perusal and requisite action. A provision for downloads has also been provided wherein employees can easily download government forms related to various HR services.

**eService Book**

At the heart of the application are the digitized service books of employees. The initial step of the project implementation is to scan the physical service books and then digitize them accurately. The service book module allows employees to view their service data in both scanned and digitized formats. This will also allow employees to check if there are any discrepancies in data entered into the system and eventually, verify service books to check whether the data is accurate and updated. This module enables the annual mandatory self-verification of service books by employees. The service book module stores data in a structured format, thereby enabling robust analysis of employee service data.

**Personal Information**

This module provides all the services related to viewing and amendment of an employee’s personal information. Employees can use this module to edit information related to their family members (occupation, marital status etc.), nominations, address, reporting/controlling officer, documents/certifications, qualifications etc. It also enables them to access and verify their personal data and ensure that they are up to date.

**Leave**

Providing an array of possible services related to leaves, this module allows employees to apply for leaves, cancel the applied leaves, extend the leaves and join after returning from leaves. They can also change the type of leave and seek permission for station leave. All the rules associated with leaves are already programmed into the system, and therefore, employees cannot apply for leaves that are not allowed to be taken.

**LTC**

Employees can view/declare their Leave Travel Concession (LTC) hometown. They can apply for LTC or leave encashment, claim LTC, cancel LTC etc., by using the module.

**Reimbursements**

This module has a provision for applying for four different kinds of reimbursements, namely Newspaper, Telephone, Medical, and Children...
Education Allowance (CEA) Reimbursement. The module has been designed keeping in mind the eligibility of different types of reimbursements for different levels of officers.

**Advances**

Employees can use this module to apply for advances (General Provident Fund i.e., GPF advance/ withdrawal, house building advance, computer advance), cancel and refund advance, convert GPF advance to withdrawal, house building advance etc.

**Tour**

This module allows them to apply for tour and tour advance, refund TA advance, cancel tour, and claim tour.

**Skill Development/ Training**

The skill development module facilitates user departments to register/ engage different training institutes and then view the training calendar published by those institutes. Departments can select the trainings required by their employees. The training may be assigned to individual employees, who will be informed about the same through the dashboard provided. Employees can also request for additional training courses from the training calendar available. The system will also gather the work done by employees and the quality of work done by them in that domain. Based on the data targeted, training programs may be assigned to enhance employees’ suitability for their roles.

**Helpdesk**

The helpdesk module enables user to lodge complaints regarding their applications. The admin can view complaints, and there is also a provision for complaint resolver who is responsible to take due action and monitor/ update the status of complaints.

**Transfer and Posting**

This module allows employees to apply for transfer and deputation. Employees can choose if it is a mutual transfer or otherwise they can fill in three preferences of location for their transfer request.

**Reports**

Each module has a panel for report provided for employees. It has a section named My Reports, which consists of reports related to the application status of a particular employee, for e.g., status of leave requests, reimbursement for current year etc. There are also subordinate reports, which provide details of application requests of an employee’s subordinates. This helps the mid-level management to get a clear picture of the availability of subordinates, and it also facilitates informed decision-making for approval/ rejection of application requests from subordinates.

**Integration with Other Systems**

The eHRMS application seamlessly integrates with other systems such as PFMS, Bhavishya and SPARROW. PFMS is a platform that facilitates a sound public financial management system for the government by establishing an efficient fund flow system as well as a payment cum accounting network. The eHRMS services are tightly coupled with the PFMS application. The two applications have been integrated with the use of web services. Employees can now request to view their salary slip, Form 16, Income Tax Statement, GPF Statement etc., directly from the eHRMS application. This is another step towards providing all services related to Human Resources under one umbrella. Data exchange servers are in place to facilitate exchange of data from external applications. The system can, hence, be easily integrated with other applications like Bhavishya, SPARROW etc.

**Dashboards**

Currently, the employee service records are maintained in physical service books and/ or loosely coupled HR modules. This did not allow for a comprehensive analysis of the service data of employees. The eHRMS application has provided a structured data repository for all employee records related to all the HR services. It is comprised of comprehensive, interactive and easy to use dashboards for both the management and employees separately.

**Management Dashboards**

Management dashboards have been designed with the aim of providing an in-depth analysis of data available in all e-service books. It provides details related to gender/ category/ cadre/ service group/ pay band/ educational qualification. The very purpose of the management dashboard is to enable the policy makers to draw actionable insights using the consolidated analysis
HR Strength: This section provides charts related to category wise, service group wise and gender wise distribution of employees. It also provides crucial data related to an employee’s retiring and tenure of the staff. This section acts as a decision support system for employee recruitment and selection strategies in government organizations.

Pendency: This part of the dashboard is dedicated to analyze the pending service requests of employees. It has metrics like the span of pendency wherein a user can drill down to understand the type of services that are pending for approval and who is it pending with. The pendency data may help increase accountability in the employees and also reduce unnecessary delays in approval of applications.

HR Development: This section provides charts related to the various training and capacity building activities in an organization. It shows staff who are currently in training, various trainings taken by them in the current year etc. Training data of employees in an organization may eventually serve as a source of analyzing employee skills. This may also be critical to understand skill gaps in an organization and requirement of new training courses.

eHRMS Roll-out Status: This section is extremely essential to assess various implementation activities going on in different Ministries. It is important to keep a track of number of service books scanned, employee authentication done, admin/ agency approval completed etc., across various Ministries. This helps in understanding the quantum of work pending across Ministries/ Departments.

Employee Dashboard

Employee dashboard provides employees with a single view of the array of services in eHRMS and enables them to access services to be availed. Besides modules, it also comprises of the following sections:

Pending for approval: This shows the application requests pending for action at the employee’s end.

Status of requests: This displays the status of applications submitted by the employee. They can view whether the application is approved or pending, with whom it is pending, type of application etc.

Training: This displays trainings assigned by the admin to the employee.

Target Users

The eHRMS application touches all of employee data available in the application.

Management dashboards have been designed and segregated into the following categories:

HR Analytics: This section focuses on displaying the distribution of employees in an organization or in a service based on metrics such as age, education discipline and pay-band. It also provides charts related to hire retire ratios, types of leaves taken by employees etc. This section carefully uses data in the personal information module and helps analyze the current state of the human capital in a particular organization/ department.
aspects of HR for an employee. Hence, all the stakeholders currently involved in Human Resource activities are the target users of the application.

- All government employees
- Transfer and posting controlling employees
- Promotion controlling employees
- Vigilance and penalty controlling authorities
- Administration section of each office
- Personnel section of each office
- Finance section of each office

**Services to Stakeholders Employees**

Digitized service books have increased accuracy and transparency in employees’ service books data. Employees can access their data any time and request for an update, if required. Unnecessary delays in application approval and disbursal of due benefits have also reduced. All the HR related services can be accessed via the same platform, and the pending application requests can also be tracked. The advent of eHRMS has made the HR activities for government employees seamless and hassle-free, which may result in an increase in overall employee satisfaction.

**Administration Employees**

The application has a separate role-based access for administration/establishment employees in an organization. It has led to a drastic reduction in the amount of time and effort that was required by admin to perform their day-to-day activities. The application has simplified processes such as service book entry/updation, organization management (section, division, post etc.), employee management (posting, transfer, change in reporting/controlling officer, change in work status etc.) and vigilance. Each activity has witnessed an extreme improvement in efficiency with respect to time and effort, thereby reducing work load on administration offices.

**Mid-level Management**

Apart from services offered to employees, the mid-level management employees can view data related to their subordinates. The subordinate reports help approvers take informed decisions while approving/rejecting employees’ application requests. It also helps the mid-level management employees gauge the availability of their subordinates and plan accordingly.

**Top-level Management**

The application stores employee service data in a structured form and facilitates automatic updation of service books. The structured data storage allows the application to analyze service data and illustrate them in the eHRMS dashboard. The top-level management may make use of the interactive and comprehensive data visualizations in the dashboard as a decision support system. The dashboards are crucial to provide data-driven decision-making for issues like hiring, training, financial planning, training requirement etc., in government organizations.

With digital transformation in the Human Resource Management space, our solution eHRMS has turned out to be a one-stop solution addressing multiple needs of an employee as well as an organization. Functionalities like service book, leave management, reimbursements, tour & travel etc., have not just helped us build an organized HR ecosystem but have also paved the way to call out meaningful HR analytics and insights that will help the government in formulation of various policies.

Dr. NEETA VERMA
Director General
National Informatics Centre

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**Dashboard showing features of HR analytics**
Implementation Methodology

The application has already been implemented in DoPT, and it is being used by their employees. A set of standard processes have been put in place so as to ensure that the entire process of roll-out is seamless and hassle-free.

Following steps are being undertaken for the roll-out of the application:

- Nodal officer who shall be responsible for coordinating the entire process of implementation shall be identified from each Ministry/Department.
- Roll-out managers shall be appointed, trained and deployed at the premises of organizations for handholding support.
- Organizations are registered on the eHRMS platform; separate instances are created for each organization.
- The existing service books are handed by respective admins for scanning.
- Latest employee information which is required for decision-making shall be entered into the system.
- Scanned service books are uploaded for employees legacy data.
- The employee information shall be shown to the employees for self-verification.
- After employee verification, the information shall be shown to administration division for approval.
- Service workflows are taken from the administration office, discussed and entered into the system for various services of eHRMS.
- All employees with approved service books (legacy data) can use eHRMS services such as personal information, LTC, leave, advances and tour on a day-to-day basis.
- Service books shall get updated automatically.
- e-signed pdf for each online service shall also be stored automatically.

Implementation Support

The Department of Personnel and Training, along with the National Informatics Centre, is facilitating the process of training and implementation of eHRMS. A demo site is available to help end users explore the software with test data. Module wise user manuals have also been prepared for ready reference of the users. In addition to the user manuals, training videos explaining the functioning of various services have been prepared for easy understanding. These support materials are available on the demo site as well as on the online site for users to view and download. To facilitate a seamless implementation, a separate manual has been drafted for roll-out managers, which is used to train them, before they are posted to different Ministries/Departments for application roll-out. A standard operating procedure has also been prepared, stating the process of implementation in a time-bound and actionable manner. It lays down guidelines related to the scanning process, pre-requisites for implementation and stakeholders roles & responsibilities.

Implementation Status

The application has already completed a very successful pilot in DoPT. The services are in use by their employees, and more than 13000 applications have already been processed by the system. It has also been rolled out to 31 Ministries/Departments with the eServicebook module currently being used. Other seven modules (Personal Information, Leave, LTC, Reimbursement, Advance, Tour and Training) shall also be implemented in a short time. The application has generated a lot of demand in government organizations. As a result, it will be soon rolled out to the Supreme Court and Delhi Development Authority.

How to Access?

To get hands-on experience and training, users may visit the demo site, which has been arranged for them to explore the software with test data. They may visit the URL http://ehrms.gov.in/ehrms for actual data entry.

Summary

The vision of eHRMS project is to:

- Provide a single source of truth of Human Resource data for all the employees of the Government of India, wherein a robust HR application is not in place.
- Bring in transformational changes in the processes, technology and mindset behind HR related service requests.
- Make the best use of emerging technologies and redefine how HR processes happen in the government organizations.
- Serve as a mode of communication for all the employees of the Government of India to facilitate a more collaborative and cross functional work space.
- Provide a platform for exchange of best practices among government employees across India.
- Enable comprehensive analysis of HR data of government employees to provide actionable insights for policy makers.

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Simultaneous Parliamentary and Assembly Elections 2019 in District Tirap

Smooth management through effective intervention of ICT-enabled applications

The development of IT applications for election management has automated the work of the Election Commission of India (ECI), thereby speeding up operations and enhancing efficiency. NIC Tirap has helped District Authorities utilize the applications developed by ECI to conduct elections at such a remote and difficult terrain.

Elections form the bedrock of the largest democracy in the world i.e. India. Democratic nations conduct elections where people have a say on the kind of government that will safeguard all their interests and aspirations. Elections held in 2019 have, therefore, been truly dubbed as “Desh Ka Mahatyohar” - the Country's Greatest Festival. For the smooth conduct of Simultaneous Elections 2019, NIC Tirap District Centre was assigned with the task of leading the management of ICT operations by using several applications developed by the Election Commission of India (ECI).

ICT Applications Employed for Elections

The following ICT initiatives of ECI were utilized in Tirap for efficient management of the Simultaneous Elections 2019:

**Suvidha**

A single-window clearance system, Suvidha portal enables handling of various permissions related to campaigning, uploading nomination details and affidavit as well as feeding real-time vote counting details on the counting day for Trends and Results Dissemination.

NIC Tirap was entrusted with the management of different aspects of portal during elections. As part of the work, training on the workflow and working of the portal was provided to the Returning Officers and the Data Entry Operators.

On the counting day, live vote count was entered in the portal.

**EVM Management System (EMS)**

ECI launched the EVM Management System to manage inventory and tracking of EVM units. It handled different election activities like marking First Level Check (FLC), randomization (first and second) etc.

NIC Tirap successfully completed the FLC OK marking, randomization, scanning through the dedicated EMS App, generating different reports etc.

NIC Tirap has effectively implemented many ICT applications and provided necessary technical support to the District Election machinery during the Simultaneous Elections 2019. Further, with the active support of NIC, the District Administration has implemented various Central and State level projects like Vahan, e-Services, S3WaaS Website etc., in the District. This has enabled the administration to provide transparent, effective and efficient citizen-centric service delivery to the people of Tirap District.

I wish NIC Tirap many more success stories in its endeavors to reach expectation of the people of Tirap District.

**P.N. THUNGON**

Deputy Commissioner cum District Election Officer
Khomsa, Tirap District

Edited by

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NIC Tirap has managed to create an毛主席 that will be a permanent landmark in the world i.e. India. Democratic nations conduct elections where people have a say on the kind of government that will safeguard all their interests and aspirations. Elections held in 2019 have, therefore, been truly dubbed as “Desh Ka Mahatyohar” - the Country's Greatest Festival. For the smooth conduct of Simultaneous Elections 2019, NIC Tirap District Centre was assigned with the task of leading the management of ICT operations by using several applications developed by the Election Commission of India (ECI).

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**P.N. THUNGON**

Deputy Commissioner cum District Election Officer
Khomsa, Tirap District
**C-Vigil**

The C-Vigil Mobile App was launched by ECI to enable citizens to report on violation of the election code of conduct. A citizen can click a picture or record a video of up to two minutes of the incident of violation of the model code, and upload it using the App. The photo or video is then subsequently processed by the election machinery, and the citizen is informed about the action taken within hundred minutes.

NIC Tirap was entrusted to train different officers involved in the process. A District Control room was set up with dedicated manpower to track and coordinate different complaints from the users.

**ETPBS**

The Electronically Transmitted Postal Ballot System (ETPBS) enables entitled service voters to cast their vote using an electronically received postal ballot from anywhere outside their constituency.

NIC Tirap took a leading role in the execution of different technical aspects of the system. The system was updated with the electronically generated Ballot Papers which were approved by the Returning Officers and ETPBS PINs were generated.

A dedicated team of IT staff was trained by the DIO, Tirap for scanning ETPBS on the counting day.

**Pollstar**

Pollstar is an innovative and versatile platform which was used for collection of different polling day related data from the Presiding Officers during the Simultaneous Elections 2019.

NIC Tirap provided hands-on training to the Presiding and Polling Officers.

**Polling Personnel Randomization**

The Elecon software of NIC Bihar, which was customized to suit the requirement of Arunachal Pradesh, was used for the first, second and third randomization of the polling personnel. DIO, NIC Tirap, carried out randomizations in presence of the General Observer and the Returning Officers. Appointment letters were also generated through the software.

**Other Activities**

The following additional tasks were also assigned to NIC Tirap:

- District Level Media Certification and Monitoring Committee
- Media & SMS Monitoring Committee
- Video Viewing Team
- Video Conferences
- Assignment of DIO as master trainer for ERONET/BLONET
- Assignment of DIO as District Contact Officer for 1950, voter helpline
- Live webcasting for five polling booths

- GPS tracking of vehicles belonging to the Sector Magistrates, Sector Officers
- Devising MS Excel based solution for carrying out randomization of the Counting Staff
- Creating LAN and providing NIC-NET support to election office and counting hall

DIO, NIC Tirap, was appointed as the Nodal Officer for ICT works, and therefore, he extended full cooperation during the conducting of Simultaneous Elections 2019. Technical support was provided by the Field Support Staff (FSE) of NIC Tirap in every minute aspect of the entire process.

**Summary**

ECI has launched a number of different IT applications to streamline the election process. NIC Tirap played a crucial role behind successful implementation of the IT initiatives on the ground, thereby ensuring complete support during elections in this remote District of Arunachal Pradesh. The support extended by NIC Tirap in the entire phase of Elections 2019 has been appreciated by the District Administration. Shri Rakesh Das, DIO, NIC Tirap, has been awarded a ‘Certificate of Appreciation’ by the Deputy Commissioner, Tirap District, or his dedication and sense of duty.

For further information, please contact:

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Jal Shakti Application
Enabling seamless monitoring of countrywide campaign through Portal and Mobile App

Jal Shakti Abhiyan (JSA) is a countrywide campaign inspired by the Hon’ble Prime Minister, Shri Narendra Modi’s impetus to Jal Sanchay. It is time-bound and primarily focused towards water conservation measures in 1592 water-stressed blocks in 256 districts spread across the country. Prior to the launch of this campaign, the Hon’ble Prime Minister’s letter addressed to all Sarpanches was sent to 2.5 lakh Gram Panchayats with a call for initiating water conservation drives during the ensuing monsoons. The vision of the Hon’ble Prime Minister for this ‘Jan Andolan’ was realized through triggering of the communities and their contribution in several events related to the campaign.

The campaign is being executed in two different phases. First phase (1st July to 15th September 2019) is during monsoon for all States and Union Territories. Further, Second phase (1st October to 30th November 2019) has been assigned for States and UTs receiving the retreating monsoon. The five key interventions decided for the campaign, along with people’s participation, are shown in Fig. 1.

Workflow
To administer these interventions, a central team consisting officer of one Additional/ Joint Secretary level, one Deputy Secretary/ Director level and one Technical Officer of Central Ground Water Board/ Central Water Commission have been deputed for each District/ Block. For successful execution of the campaign with measurable results from the participating districts and blocks, NIC cell of the Department of Drinking Water & Sanitation has developed an online portal and a dedicated Mobile Application. Both the products are operable on role-based criterion to render information pertaining to the jobs allocated to them. Pre-defined roles given with the appropriate authority and access to the portal as well as the Mobile App are shown in Fig. 2.

Jal Shakti Abhiyan Portal
A unified platform to manage all the activities related to the campaign, Jal Shakti Abhiyan portal (https://jalshakti.gov.in/jsa) receives data continuously from all over the country, and the reports are refreshed and updated every 30 seconds. A scoring methodology has been devised for evaluating ranking of the districts and generating a competition among them. The ranking list is refreshed every half an hour. The portal provides status report of various param-

| Water Conservation & Rain Water Harvesting | 2,06,834 |
| Renovation of Traditional & Other Water Bodies/Tank | 32,811 |
| Reuse and Recharge Structures | 1,05,636 |
| Watershed Development | 1,43,386 |
| Intensive Afforestation ( Saplings planted ) | 7,60,89,474 |
| People’s Participation | 3,34,97,833 |

Fig. 1: Key Intervention Areas shown on the portal
The portal captures and displays details for ongoing and completed activities in each intervention area, uploaded by the teams deployed on ground. The central level authorities and Deputy Commissioners/ District Magistrates as well as other District level functionaries review this uploaded data and the status of water conservation activities undertaken by various government departments and citizens. The portal also unveils details related to people’s participation in all the States and Union Territories.

Integration with Other Applications

JSA Portal is interoperable with the applications of various organizations, namely MNREGA portal of Ministry of Rural Development, Ministry of Agriculture Cooperation and Farmers Welfare, Ministry of Environment Forests & Climate Change, and Ministry of Housing and Urban Affairs.

Technical Specifications

JSA portal is designed and developed using the following technologies:

- **Back-end:** MS SQL Server 2016
- **Front-end:** ASP.NET 4.7, IIS Server 10

It also uses SMS and email services to immediately intimate users about any updates related to the campaign. In some cases, these services can also be pre-scheduled for sending messages to the concerned users.

Key Features

**JSA Portal:**

- Captures details of officials’ visits and progress of all JSA activities.
- Receives general and activity-wise feedback.
- Monitors people’s participation.
- Generates daily reports for the Cabinet Secretary.
- Maintains details for outcome interventions reported.
- Exports real-time status updates of reports in word, pdf and excel formats.
- Calculates dynamic ranking of top 10 performing districts during the campaign.

**JSA Android Mobile Application**

JSA Android Mobile App has been developed to increase participation in the campaign. It is well designed for teams on the field to report about the works being carried out under JSA. It emerges as a convenient option where

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With water resources management placed at the centre of the development agenda by the Hon’ble Prime Minister, the Jal Shakti Abhiyan has been a significant accelerator to generate a people’s movement for water conservation across the country, with key interventions specifically undertaken in 256 water stressed districts. A testament to the strong collaboration between the Centre and State Governments, 1200 senior officials from the Government of India were assigned to the districts as Nodal Officers and joined by representatives from the District Administrations. The overall effort of all stakeholders has led to a jan andolan for water conservation with tremendous people’s participation garnered from across the country. I would like to congratulate the NIC team in the ministry for providing outstanding information management support for the campaign.

PARMEWARAN IYER
Secretary
Dept. of Drinking Water & Sanitation
Ministry of Jal Shakti

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Fig. 2: Jal Shakti Abhiyan Workflow
some other devices such as desktop and laptop are difficult to be deployed. It automatically fetches the latitude and longitude of a user’s location and is designed to work in offline mode as well. The teams/officials can capture activity and then report the data once the Internet is available to the user.

It features geotagging options for the activities (photographs) being carried out in the districts and captures general/activity-wise feedback from senior nodal officers deputed by the Central Government. The App also comprises of an option that redirects the link to fill in the information pertaining to the adoption of five sites for intervention.

### Key Features

- Offline data sync to server
- Geotagging of activities
- General and activity-wise feedback
- Easy data updation from any remote District/Block

The App is available on:


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**Jal Shakti Abhiyan (JSA), a countrywide campaign for water conservation, is conceptualized as a commencement of a Mission Mode Project “Jal Jeevan Mission” of providing tap connection in every rural household by 2024. The development of portal for JSA and Mobile App was entrusted with the NIC Division of the Department and has been launched well in time for capturing the important data related to JSA activities. The portal has been widely appreciated due to the ease of use and intuitive design. The ranking of districts made them competitive in achieving the goals of the campaign. The portal is interoperable with the applications of various ministries like Rural Development, Housing and Urban Affairs, Environment, Forest & Climate Change etc., with a real-time Dashboard.**

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**D. C. MISRA**  
Deputy Director General  
National Informatics Centre

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**Summary**

The data recorded under JSA campaign will act as a foundation for assisting the subsequent water related programs, namely “Jal Jeevan Mission” announced by the Hon’ble Prime Minister to ensure piped water supply to all the rural households by 2024. It is budgeted around Rs. 3.5 trillion and is focused towards the implementation of various water conservation measures and grey water management techniques. The statistics, rankings and reports generated with JSA portal and Mobile App help define a blueprint to specify tasks and activities for accomplishing Jal Jeevan Mission. **■**

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The API Management Solution deployed at MyGov facilitates the connection of data and business functions. MyGov uses Tyk as its API Gateway and API Dashboard.

The Gateway is Capable of:
- Extract and expose APIs
- Create, publish and update APIs
- Manage API definitions
- Create and manage API policies
- Create and manage API user groups
- Create and manage API sessions
- Create and manage API quotas
- Create and manage API rate limits
- Create and manage API notifications
- Create and manage API WebHooks
- Create and manage API user accounts
- Create and manage API user roles
- Create and manage API user permissions
- Create and manage API user groups
- Create and manage API user sessions
- Create and manage API user quotas
- Create and manage API user rate limits
- Create and manage API user notifications
- Create and manage API user WebHooks
- Create and manage API user groups

Manage All your APIs at One Place
- Expose all APIs behind a single IP and domain
- View near-real-time usage, performance and health analytics
- Automate management and integrate using REST API
- Provision API Management and scale it on demand

Components
- MyGov API Gateway
- MyGov API Dashboard

Technology Brief
API Gateway on MyGov is an open source solution that is fast, scalable and modern. Basically, it is an implementation of gateway that sits in front of APIs and acts as a single point of entry for a defined group of micro-services or APIs. In addition to accommodating direct requests, it is also being used to invoke multiple back-end services and aggregate results.

Gateway performs the Authentication, Security, Traffic Control, Caching, Logging, Analytics, Monitoring and much more. It can run completely independently, requiring only MongoDB and Redis to be effective, and it can scale horizontally.

Important Features of Gateway
- Quotas and rate limiting
- Authentication
- On-the-fly transforms
- Caching
- Logging

Fig. 1: API Management Life Cycle
The Gateway is Capable of:

- Managing session objects.
- Managing and listing policies.
- Managing and listing API definitions.
- Hot reloading a cluster configuration (configuration changes can be pushed without any downtime).
- OAuth client creation.

API Dashboard on MyGov is used for creating, publishing, maintaining, monitoring, and securing REST APIs at any scale. It provides maximized scalability and reliability by offloading API Governance to the edge. It is the visual Graphical User Interface (GUI) and analytics platform for managing the APIs.

Dashboard allows to maintain, manage, promote and protect the APIs quickly and easily, using the open source gateway combined with a sleek user interface control panel. It provides an easy-to-use management interface for managing the installation as well as clear and granular analytics.

Important features of Dashboard

- Design endpoints with a GUI
- Interrogate API usage with powerful analytics
- Unify API management
- A user-friendly GUI

Benefits

- It encapsulates the internal structure of the application. Rather than having to invoke specific services, clients simply talk to the gateway.
- The API Gateway provides each client with a specific API. This reduces the number of round trips between the client and application.
- It also simplifies the client code.

Drawbacks

- It is yet another highly available component that must be deployed, deployed and managed.
- There is also a risk that the API Gateway becomes a bottleneck. Developers must update the API Gateway in order to expose each micro-service endpoints.
- It is important that the process for updating the API Gateway be as lightweight as possible. Otherwise, developers will be forced to wait in line in order to update the gateway.

How to Configure an API?

Creating an API Endpoint - It consists of Base and Advance Configuration to create any API Endpoint.

Base Configuration - Define the API Name, API Slug, Target URL (having provision of Round Robin Load Balancing), Policies (assign the policy), Service Discovery and Authentication Mode (choose one of the modes i.e., Token/ HMAC/ Oauth2.0/ Keyless) to create a new API Endpoint.

Advance Configuration - Define the version, designer (to manage processes

![Fig. 2: API Gateway Components of MyGov](image)

### Average usage over time

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![Fig. 3: API Dashboard Activity](image)
specific endpoints by default, it will proxy all requests), cache options, CORS, batch requests, segment tags, white listed IPs and WebHooks.

**Uptime Tests** - Enabling this option will cause gateway to check the target URL against hosts in the uptime tests for downtime. This should only be used with round-robin load balancing.

**Creating an API Key** - A key can be created and the access permissions can be set up for a specific key. Multiple settings can be enabled including quota settings, rate limits and access rules for specific API versions. It is running in hashed key mode. This means that keys available on the system may not be listed, since keys have been encrypted. If the API key details are known, it is still possible to edit, delete and modify API keys.

**Defining Policies** - Policies are a way to enforce a standard set of rate limits, quotas and access rules on a set of keys. When used in conjunction with the portal, developers who enroll for API access will be given a key that is attached to a specific policy. The policy settings are refreshed every time a key attempts access, meaning that updating a policy will have an effect across any keys that are attached to it.

Security policy incorporates several security options that can be applied to an API key. It acts as a template that can override individual sections of an API key (or identity) in Tyk. For example, if 10,000 API keys were issued, how would it be ensured that all 10,000 users received an upgraded quota or accessed a new API that was published?

All 10,000 keys could be modified manually, or a policy could be applied to each of those keys when they are created, and then the policy is modified once.

Policies can set:
- Access lists for API and versions.
- Access lists for method and path (granular control).
- Rate limit for a user.
- Quota for a user.

**Creating WebHooks** - WebHooks are a great way to let external applications know about the status of a user, an API or an event that has occurred in the Tyk gateway. New WebHooks can be created here and re-used in API Definitions. They can be assigned to different events such as quota violations and rate-limiting violations.

A WebHook that can be reused across API definitions can be set up. WebHooks support custom headers and can be deployed using GET, POST, PUT, DELETE and PATCH HTTP verbs.

**Summary**

For most micro-services based applications, it makes sense to implement an API Management Solution, which acts as a single entry point into a system. The API Gateway is responsible for request routing, composition and protocol translation. It provides each of the application’s clients with a custom API. The API Gateway can also mask failures in the backend services by returning cached or default data.

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Visit the Mobile App Store
http://egovmobileapps.nic.in

Appscape features latest Apps developed/ supported by NIC. The concerned officers may be contacted for further information through the respective email id provided for all the Apps.

Jagruk

The Government of India has launched a “24x7 Power for All” programme to ensure the availability of 24x7 reliable and quality power for all households, industries, commercial businesses and public needs as well as adequate supply to agriculture, as a step to achieve inclusive development. An appropriate mechanism in the form of a crowd sourcing based Mobile App called Jagruk has been developed to obtain real-time consumer feedback on quality and availability of power across the country.

Developed by National Power Portal Division, NIC, the App captures the number of hours of power supply and the number of power outages of a particular location during the previous day. This data, thus collected from the App, can be analyzed and shared with Discoms and District Administration to take necessary action to ensure uninterrupted power supply in respective areas.

Jagruk is a hybrid App developed using Angular JS and PostgreSQL. Android users may download from Google Play Store, and iOS users may use it as a Progressive Web Application with same look and feel as that of a Mobile App.

Enabling self-registration to pilgrims, Shrikhand Mahadev App helps District Administration of Kullu keep a track of people undertaking the Shrikhand Mahadev Yatra that takes place annually. Developed by NIC Himachal Pradesh, the Android App features the following:

- A complete App tour to view the available features.
- Information about Kullu District, Shrikhand Mahadev Yatra and the trek route is available.
- Users can register using their mobile number, and the authentication is done through an OTP.
- Users can set emergency contact who can be approached by the District Administration in case of urgency.
- After successful registration, users get a button to use when the journey starts. The Administration is informed through an SMS. Thereafter, the App can be used in offline mode, because connectivity is not available during the Yatra.
- Once the journey starts, users get an SOS message sending facility and an option to intimate their current location coordinates to the Administration. The SOS message is also sent to their defined emergency contact.
- On return, users can end their journey, and it is recorded by the Administration.
- This data of pilgrims can be used to send SMS based alerts or advisories to them.

Shrikhand Mahadev

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Appscape

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Ente Jilla

Comprising information about each district in Kerala, Ente Jilla Mobile App is a redesign of ‘We Are Kannur’ Application to suite implementation in any district of the state. Developed by NIC Kerala, the App provides a facility to change the district while in use. All the districts have been on-boarded and District Administrators are provided with a facility to update the information.

The App facilitates the following:

- Offices are pinned in Google Maps for locating and getting directions. The contact numbers displayed provide a direct call facility. Users can rate an office on a five-point scale, and write a review about it based on the service obtained. Reviews and ratings are made available to the public.
- Top Ten feature shows ten major activities or tourist spots of each district.
- Links to important portals like eDistrict portal, utility payment portals etc., having service delivery to citizens are provided.
- A feature to lend a helping hand to the District Administration to meet petty needs of orphanages, old age homes etc., is provided.

The scalable App can be replicated at national level, covering all the districts of India and also has a provision for value-added services.

S.L. Kumawat (sl.kumawat@gov.in)


Raj Assembly

Enabling a significant step towards becoming a paperless Assembly, Rajasthan Legislative Assembly Mobile App provides detailed information about the Legislature and its Secretariat. Developed by NIC Rajasthan, the Android App is meant for members, citizens, media and researchers who can keep track of Questions, Motions, Bills, House Proceedings etc. Common citizens can view live Assembly proceedings during the session and also view their representative’s information on Google Map through this intuitive Application.

The App was launched by Shri Om Birla, Hon’ble Speaker, Lok Sabha, in the presence of Hon’ble Speaker, Rajasthan Legislative Assembly and Chief Minister, Rajasthan. Rajasthan Legislative Assembly is the first Assembly to have all its functions online. The Assembly debates since 1952 are available online.

Some of the App features are:

- Profile of H.E. Governor, Hon’ble Speaker, CM & Office Bearers
- Questions and Answers
- Notices under various rules and their replies
- House Proceedings
- Bills introduced and passed in the House
- List of Business (LoB)

Ajay Singh Chahal (ajay.chahal@nic.in)


Civil List HP

The civil lists of IAS, IPS, HPAS, HPSS and Heads of Departments of Himachal Pradesh Government are available in an easily searchable format in the Civil List HP Mobile App. Available on both Android and iOS platforms, the App is linked to the Civil List Directory available on the State Portal. Back-end data is updated by the HP Personnel and Home Departments respectively for correct display of data on Web and Mobile App.

A user can directly tap links for different Services to view complete list of officers belonging to a particular Service. Furthermore, shortlisting of officers is available by entering the name or batch or designation in the Search field available at the top. The list is sorted batch-wise within a Service. On tapping the name of an officer, details like batch and ID, date of birth, birth place, educational qualification, appointment date, present posting, pay-scale etc., show up.

User may also search officers based on Cadre, Batch, Name and Current Designation for quick display of desired results.

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https://play.google.com/store/apps/details?id=hp.in.civilist
## Drug Free Himachal

An initiative of the Himachal Pradesh Police to curtail the usage of drugs in the state, Drug Free Himachal Mobile Apps aims to educate the society about harmful effects of drugs and provide information about de-addiction & rehabilitation centres as well as to collect information about drug smugglers and peddlers from the public.

There are two Mobile Apps as part of Drug Free Himachal. The general usage App is available in public domain on Google Play Store and iOS Mobile App Store, while another App is developed for the officials of State Narcotics Department within Himachal Pradesh Police. The officers are provided with important information sent by App users i.e., the public. The Narcotics Cell processes this information internally, as per a procedure, to stop smuggling, usage, promotion and drug peddling.

All the advisory information is available in Hindi and English languages and is useful for citizens beyond the state borders. Citizens can confidentially report transportation, storage, sale and other information about drugs to the HP Police, by providing name and phone number of the suspects, along with location and photo(s), if available.

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## Sarkar Diary

Facilitating the contact directory of Senior Officials in the Government of Kerala, Sarkar Diary Mobile App provides information right from the Office of the Hon’ble Governor of Kerala, Office of the Hon’ble Chief Minister, Council of Ministers and various departments & offices across the State, along with details of important contact persons. An extension of the existing Diary Data Capture Application, the App has been developed by the Competence Centre for Mobile Application Development, NIC Kerala, as per the requirements proposed by the General Administration Department, Government of Kerala. It was launched by Shri Pinarayi Vijayan, Hon’ble Chief Minister of Kerala.

Every year, around 700 users update the respective office contact details through their login in the above application. The summarized data is used for printing the contact section of the Government of Kerala Diary every year. Necessary APIs required for the Mobile App were developed and integrated in the Diary Application to provide correct information to users. The App provides an easy to use interface to browse the above contacts through search option and explore them category wise.

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## Telangana State Pharmacy Council

Providing online services to pharmacists and citizens, Telangana State Pharmacy Council (TSPC) Mobile App facilitates information about latest inputs in the field of Pharmacy to the pharmacists and authenticity about their registration number to the general public in the state. The inbuilt dashboard service provides information like categorywise details, district wise details and drill down information to the pharmacy department, which helps them to analyze the ground reality and take appropriate decisions.

Developed by NIC Telangana, the Android App provides authentic information about pharmacists, which helps citizens verify the trustworthiness of the nearby pharmacist. Certificates issued by TSPC can be verified with the help of an inbuilt QR Code option in the App.

The new pharmacists are approaching the web portal for registering themselves for various services like registration, renewal, duplicate certificate etc., against the old process of manual registration. Their application status can be verified by themselves from time to time. This provides them with updated information, and they can take remedial action, if required.

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MIT develops a sensor that can work underwater without a battery and send back data

Researchers at The Massachusetts Institute of Technology (MIT) have created a new underwater sensor and communication system that doesn’t require batteries, and barely uses any power at all. This could help set up an underwater Internet of Things, according to MIT, which would allow for real-time sea temperature and marine life monitoring, without requiring regular equipment and power swaps to make it work. Without that requirement, it would even be possible to set up networks of underwater sensors in the seas of distant planets.

The system, devised by MIT researchers, uses a transmitter that sends out sound waves underwater, which then hit sensors with embedded receivers, transmitting a tiny amount of energy in the process. The sensor then either uses that energy to answer back - or doesn’t, which corresponds to either a 1 or a 0, meaning it can effectively communicate in binary. The only energy required for this to work is the power stored in the sound wave sent by the transmitter.

The inspiration for devising this system came from a somewhat unlikely source: Fadel Adib, an Assistant Professor in the MIT Media Lab and one of the researchers who worked on the project, was watching nature doc “Blue Planet” and thought about how much of the Earth’s oceans are left unstudied, and also about how the solution for that can’t be battery-powered sensors as that could result in a lot of excess pollution.

Essentially, the system works by allowing piezoelectric resonators, which have been used in things like microphones for well over 100 years, to either deform in response to a sound wave, or retain their shape and reflect, based on information contained in any kind of sensor you might want to pair with the piezoelectric material. That sends back the binary signal, which can then be collected and interpreted.

Source: https://www.techcrunch.com

Malaysia announces new partners for digital transformation lab

The Malaysia Digital Economy Corporation (MDEC) announced nine new Digital Transformation Lab (DTL) partners that it has invited to join its commitment to “empower more Malaysian businesses to go digital”. The move also intends to establish the country’s position as the region’s tech and digital hub. The nine new DTL partners will join the existing partners, bringing it to a total of 14 partners.

MDEC is a government agency under the Ministry of Communications and Multimedia Malaysia with a mission to lead the nation’s digital economy forward. According to the World Economic Forum’s Digital Transformation of Industries report, companies that understand digital transformation earn 26 per cent more profit than others.

Businesses in Malaysia are being urged to recognize the importance of digital transformation and the limitless benefits it can bring. Public-private partnership is an essential component in Malaysia’s digital transformation journey. To prepare itself in welcoming the Fourth Industrial Revolution, MDEC established DTAP in 2018 to equip Malaysian companies with the necessary tools to help kickstart their digital transformation journey.

The initiative was launched with objectives such as “future-proofing” Malaysian companies by helping them enhance their competitiveness, and providing a structured approach via DTL partners while adopting emerging digital technologies.

Source: www.opengovasia.com
India’s domestic Global Positioning System (GPS), Navigation with Indian Constellation (NavIC), built by the Indian Space Research Organisation (ISRO), has been approved by 3rd Generation Partnership Project (3GPP), an international organization that makes protocols for mobile telephony. This means manufacturers can now mass-produce the navigation device compatible with India’s own GPS NavIC. Besides, people will soon be able to use Indian GPS in their mobile. It is also possible that they will get the App of NavIC in mobile, along with GPS.

NavIC is a Regional Navigation System (RPS). The position accuracy of NavIC is 5 meters, which makes it technically better than all the other GPSs as they have the position accuracy of 20-30 meters.

In a meeting held in California from 16th to 20th September, 3GPP recognized NavIC as having met international standards. The organization had approved the inclusion of NavIC in Rel-16 LTE and Rel-17 5G NR specifications. Now the Telecommunication Standards Development Society of India (TSDSI) will combine these standards with national standards. After this, NavIC will start appearing on mobiles instead of American GPS.

Expressing happiness over this achievement, Dr. K. Sivan, ISRO Chief, told the Times of India that he is very glad that 3GPP has given recognition to NavIC. He said, “NavIC is working perfectly. For this, our 8 satellites are deployed over India. Seven are for satellite navigation. One is for satellite messaging. Some Apps based on NavIC are already working, while some will start soon. Soon we will launch NavIC based App. So that, the common man can get the benefit of it.”

People are calling it NavIC as native GPS, but it cannot be called GPS because it will work only on India. For this, ISRO has placed 8 satellites in the orbit of the earth. Their full name is – Indian Regional Navigation Satellite System (IRNSS) or NavIC. This will provide better navigation than GPS anywhere in India. Also, accurate positioning up to 1500 kms outside the country’s borders will be known.

NavIC will exactly look like the American GPS, but its quality will be better than GPS. NavIC will provide accurate navigation data of sea, land and air. It will be useful in disaster management, vehicle tracking and fleet management, integration with mobile phones, precise timing, mapping etc.

The potential of this indigenous system is being demonstrated in various application sectors, viz. vehicle tracking system, mobiles, timing & power synchronization, fisheries and surveying. For example, all commercial vehicles registered from 1st April 2019 onwards are mandated to have vehicle trackers, which are also NavIC-enabled. More than 30 companies are manufacturing Automotive Research Association of India (ARAI) or International Centre for Automotive Technology (ICAT) approved NavIC-enabled vehicle trackers in India. Through the provision of these services, the dependence on the American-owned GPS could be obviated.

After this approval, Indian has joined the exclusive Global Navigation Satellite System (GNSS) club comprising the US, EU, China and Russia who depend on their own satellites for navigation application in their respective regions.

The other countries which have their own indigenous system are Russia (GLONASS—Global Navigation Satellite System), European Union (Galileo Positioning System), Japan (Quasi-Zenith Satellite System—QZSS) and China (Beidou Navigation Satellite System—BDS).

Earlier, ISRO had provided 250 NavIC Messaging Receivers (NMR) to fishermen of Kerala respectively on a trial basis. This device provides Emergency Warning Alerts such as cyclone, high waves and Tsunami and also provides information on Potential Fishing Zone and International boundary crossing based on the position information from NavIC.

ISRO have taken up the responsibility of providing NavIC devices on trial basis. Around 200 devices for Tamil Nadu and 250 devices for Kerala are distributed. A few numbers, viz. 8 and 10 respectively are provided to fishermen of Andhra Pradesh and Karnataka States for trial exercises.

Source: www.indiandefencenews.info
Direct Benefit Transfer of Fertilizer Subsidy (DBT 2.0) launched in New Delhi

Shri D.V. Sadananda Gowda, Hon’ble Minister for Chemicals and Fertilizers, launched Phase-II of the Direct Benefit Transfer of Fertilizer Subsidy (DBT 2.0) at the Constitution Club of India, New Delhi on 10th July 2019. The Department of Fertilizers has implemented the Phase-I of Direct Benefit Transfer system in fertilizer subsidy pan India in Fertilizers w.e.f., March 2018. Shri Mansukh L. Mandaviya, Hon’ble Minister of State for Shipping (IC) and Chemicals & Fertilizers, Shri Chhabilendra Roul, Secretary (Fertilizers), Shri Dharam Pal, Additional Secretary (Fertilizers) and Smt. Alka Tiwari, Additional Secretary and Financial Advisor (Fertilizers) were also present on the occasion.

NIC-Fertilizer team headed by Dr. Ranjna Nagpal, Deputy Director General, Shri Ajay Kumar Chhakara, Senior Technical Director, Shri Rajiv Kumar Sharma, Senior Technical Director, Shri Aseem Gupta, Technical Director, Shri Ajay Sharma, Scientist-C, Smt. Ritika Gupta, Scientist-C and Shri Ashutosh Tiwari, Scientist-B attended the launch.

The Integrated Fertilizer Management System (iFMS)/ DBT has 190 fertilizer manufacturing/importing companies, 25933 wholesalers and 2.25 lakh retailers across the nation as stakeholders. The contribution of NIC in providing the technology solution was highly appreciated and commended by all the key speakers.

- AJAY SHARMA, NEW DELHI

Online Payment of Registration and Other Fee using eGRAS launched in Agartala

Shri N.C. Debbarma, Hon’ble Minister, Revenue Department and Fisheries Department, Government of Tripura, launched the Online Payment of Registration and Other Fee using Electronic Government Receipts Accounting System (eGRAS) in Agartala on 1st August 2019. Shri B.K. Sahu, Principal Secretary (Revenue), Government of Tripura, Agartala, Shri L.T. Durlong, Director, Land Records & Settlement, Government of Tripura, Agartala, Shri A. Sarkar, Jt. Secretary (Finance), Government of Tripura, Agartala, Shri C.K. Dhar, Senior Technical Director & SIO, NIC Agartala, Shri Surjeet Singh, Senior Technical Director & HoD (Revenue), NIC Agartala and Shri Sujit Deb Nath, Scientist-B, NIC Agartala were also present on the occasion.

The e-Registration is operational at all the SRO offices in the state and until now, citizens are paying the registration and other fees manually (using treasury challans and visiting banks) i.e., in a traditional way. As per the mandate of the Revenue Department to automate the processes of Land Records and Registration, the Revenue Department, in association with NIC Agartala, has developed a software to facilitate online payment of registration and other fees (processing) using e-GRAS platform. This will facilitate citizens to make payment of registration and other fees online, and applicants can pay fees from anywhere, anytime.

- ARNAB PAL, TRIPURA
DG, NIC, participates in CISO Leadership Summit 2019 in New Delhi

The second edition of CISO Leadership Summit 2019 was organized by Kamikaze B2B Media at Holiday Inn, New Delhi, on 25th July 2019. Dr. Neeta Verma, Director General, NIC also participated in the event and presented her views during a panel discussion on “Evaluating The New Security, Data Protection & Cyber Challenges - Preparing For The Future And Keeping Up To Date”. Bringing forth a deep perspective on cyber risks and vulnerabilities, Dr. Neeta Verma stressed the role of “Security by Design, Security in terms of Infrastructure and Access Control” in order to secure organizations from cyber threats.

The Summit provided a platform to Chief Information Security Officers and IT security executives across India to interact with their peers from various fields such as finance, government, telecom, insurance, healthcare and education. Promoting thought-provoking dialogue between IT security leaders, the Summit witnessed deliberations on Cyber security: Is it lost in translation, Creating metrics in line with business, Managing the use of 3rd party code, Cyber deception and creating honeypots, What impact will quantum computing have on security and more.

- SHASHI KANT PANDEY, NEW DELHI

Fisheries Information Management System inaugurated in Kerala

Smt. J. Mercykutty Amma, Hon’ble Minister for Fisheries, Harbour Engineering and Cashew Industry, Government of Kerala, inaugurated the Fisheries Information Management System (FIMS) and published Online Fisherfolk Family Register in a function held at the Centre for Marine Fisheries Research Institute (CMFRI), Ernakulam, Kerala on 2nd August 2019. Shri S. Sharma, Hon’ble Member of Legislative Assembly, Shri S. Venkatesapathy, IAS, Director of Fisheries and Dr. A. Gopalakrishnan, Director, CMFRI, along with Smt. Twinkle George, Technical Director, NIC Kerala and Smt. Syama K., DIO, NIC Ernakulam were also present on the occasion. Officers working in the sector, elected members and representatives of fishermen also participated in the event.

In her inaugural address, Smt. J. Mercykutty Amma expressed the need of utilizing the fisherfolk register for providing all sorts of benefits to the fisherfolk community and also for eliminating the undeserved. Shri S. Venkatesapathy also explained the scope of FIMS software and future action plan in detail.

FIMS is a web-enabled workflow-based system for building up of online Fisherfolk Family Register for the implementation and monitoring of welfare schemes/services and to transfer benefits to bank accounts of the beneficiaries using Direct Benefit Transfer.

- AHAMED SHAHEER J., KERALA
In the News

Hon’ble Chief Minister, Himachal Pradesh, launches Mobile App for Drug Free Himachal

Shri Jai Ram Thakur, Hon’ble Chief Minister, Himachal Pradesh launched Drug Free Himachal Mobile Application in Shimla on 30th June 2019. The Mobile App has been developed for the Narcotics Division of Himachal Pradesh Police by the NIC Himachal Pradesh Competency Centre for Mobile Application Development, Shimla.

Shri S.R. Mardi, Director General of Police, ADGPs and other Senior Officers of the Police Department were present on the occasion. Shri Prithvi Raj, Scientist-B, NIC HP briefed participants about functionalities of the Mobile App.

The citizen version of the Mobile App is available on both Android and Apple platforms, while the official user version is restricted and not available on either of the play stores. Citizens can view advisories for students, parents, teachers and how to identify drug users, besides information related to drug de-additional centres.

Citizens can send information about drugs transportation, storage, sale, usage etc., to the Narcotics Division of HP Police confidentially without revealing their name, contact, phone etc. This information will be processed by the Narcotics Division of HP Police and shared with the concerned District Police Officers for investigation and taking further action in matters reported through the Mobile App.

- AJAY SINGH CHAHAL, HIMACHAL PRADESH

Hon’ble Chief Minister, Haryana, launches Paudhagiri Web Portal and Android Mobile Application

Shri Manohar Lal, Hon’ble Chief Minister of Haryana launched a web portal (http://paudhagiriharyana.in) and Android Mobile App under #Paudhagiri campaign during a state-level Paudhagiri programme (plantation drive) held in Kurukshetra district on 16th July 2019. Under this campaign, 24 lakh students from 6th to 12th standards of all government and private schools in Haryana will plant a sapling every year during three months of monsoon.

The software solution developed by NIC Haryana enables schools to enter plant saplings received from the Forest Department and allocate plants to students. It also helps in bi-annual approval of plants survival based upon geotagged photos uploaded by students through the Mobile App. Interactive drill down MIS Reports and Dashboards have also been provided for the monitoring of inventory for plantation done by students.

The application has been developed by NIC team comprising

Shri Bidyut Ranjan Gohain, Senior Technical Director, Shri M.P. Kulshreshtha, Senior Technical Director & District Informatics Officer, Hisar, Shri Akhilesh Kumar, Technical Director & Additional District Informatics Officer, Hisar, and Shri Sumit Garg, Scientist - B, under the guidance of Shri Deepak Bansal, State Informatics Officer, Haryana.

- DEEPAK SAWANT, HARYANA
Digital Governance Tech Summit emphasizes digital transformation through e-Governance

A Digital Governance Tech Summit was organized by Microsoft India, in association with Elets Technomedia, at Hotel Taj Palace, New Delhi on 27th August 2019. Highlighting the Digital India vision of the Indian Government, the event was oriented towards discovering the role of modern technologies such as Artificial Intelligence, Cloud Computing and Internet of Things in the governance mechanism. Notable personalities from the Government sector as well as from Microsoft India and Asia were present on the occasion.

In a Fireside Chat with Shri Anant Maheshwari, President, Microsoft India, Shri Amitabh Kant, CEO, NITI Aayog talked about the implementation of Digital India vision of the Government across various sectors. Shri Ajay Sawhney, Secretary, Ministry of Electronics & Information Technology, in his inaugural address, said, “We have been consumers of software products. It is time for India to move towards being a software product nation.”

Dr. Neeta Verma, Director General, National Informatics Centre participated in one of the panel discussions on “Technical Upskilling for a New Era of Possibilities in Government” in which she underscored technological advancements over the past three decades, and how the Cloud is enabling the vision of ‘One nation, One platform’.

- SHASHI KANT PANDEY, NEW DELHI

Hon’ble Chief Minister, Chhattisgarh, launches CG-TEAMS for schools

Shri Bhupesh Baghel, Hon’ble Chief Minister of Chhattisgarh launched the ambitious Unified Digital System for school education under the name CG-TEAMS at Marra village of Patan, Chhattisgarh on 26th June 2019. Shri Anil Kumble, Former Indian Cricket Team Captain, Dr. Prem sai Singh Tekam, State School Education Minister, and other ministers & public representatives were also present on the occasion.

CG-TEAMS (Chhattisgarh Total Education Assessment & Management System) is comprised of 51 modules for students, teachers and schools under the Education Department of Chhattisgarh. Technical support to the project is being provided by NIC Chhattisgarh.

The Hon’ble Chief Minister also launched the CG MMTB App developed by NIC. The App enables students to access multimedia textbook version of 9th and 10th class subjects. Multimedia textbook is a replica of class textbook in multimedia format i.e., with audio, animations and personalized assessments.

Speaking on the occasion, the Hon’ble Chief Minister said, “The objective of this project is to take the State to a new era. The programme will not only make studying and teaching interesting, but will provide students with an opportunity to compete.”

- ASHOK MAURYA, CHHATTISGARH
Earned appreciation for successful implementation of various e-Governance initiatives in Sikar District of Rajasthan, Shri Anil Kumar Sharma, District Informatics Officer, NIC Sikar has been felicitated with e-Governance Rajasthan Award by Shri Ashok Gehlot, Hon’ble Chief Minister of Rajasthan on 19th August 2019.

In another occasion, Shri Vinod Kumar Jain, Technical Director and Shri Animesh Pant, Scientist C, NIC Jaipur have been felicitated with State-level Education Awards by the Hon’ble Chief Minister for successful computerization of various activities under Shala Darpan Portal developed for the Education Department of Rajasthan. The Awards were presented at a State-level Teachers’ Felicitation Programme held at Birla Auditorium, Jaipur on 5th September 2019.

Enabling rationalization of teachers and information dissemination to all schools, Shala Darpan covers online records of students and teachers in government schools and maintains information of schools’ enrolments, students’ results, teachers’ details, sanctioned posts etc.

NIC Kerala bags ET DigiTech Award 2019

Earned laurels to NIC, the Kerala - Single Window Interface for Fast and Transparent Clearance (K-SWIFT) project (Ease of Doing Business), developed by NIC Kerala State Centre, has been selected as the winner of ET DigiTech 2019 Award under “eGovernance Initiative of the Year” category. The Award was received by Smt. Kasthuri M, Sr. Technical Director, NIC Kerala from Shri Avtar Singh, Hon’ble Mayor, New Delhi during DigiTech Conclave organized by the Times Group at Hotel Hyatt Regency, New Delhi on 14th June 2019.

K-SWIFT is a unified platform that enables entrepreneurs to apply for all requisite clearances to start industry without any procedural delays in getting statutory clearances from various authorities, concerned throughout the life cycle of projects. It facilitates single point contact for entrepreneurs across multiple departments, Common Application Form (CAF) across multiple departments with a unique identification number, online tracking of applications and approval within fixed time limit, real-time notifications and alerts via email, SMS & dashboard, automated fees calculation by the system against each service, and much more.
NIC Shines Bright at Gems of Digital India Awards 2019

Aimed at discovering, documenting and felicitating innovative and impactful e-Governance initiatives, the third season of Gems of Digital India Awards was organized by Coeus Age Consulting and Micro Focus at the Leela Palace, New Delhi on 13th September 2019. Exhibiting prowess in the field of ICT, NIC shined bright again by bagging Awards among 34 Gems chosen for their exemplary contribution to digital technology.

eDistrict Portal developed by NIC Uttar Pradesh has been selected the winner of Analyst’s Choice Award, which was received by Shri Pratik Shrivastava, Deputy Director General, Dr. Saurabh Gupta, Deputy Director General and Shri Shailesh Srivastava, Technical Director, NIC Uttar Pradesh.

Replicated in 17 States/ UT covering more than 3 lakh schools, Mid Day Meal - Automated Reporting Management System (MDM-ARMS) Portal, developed by NIC Himachal Pradesh, has won the Award under Protecting and Assuring category. The Award was received by Smt. Padmavathi Viswanathan, Deputy Director General & State Coordinator, HP, Shri Sanjay Kumar, Technical Director and Shri Mangal Singh, Scientist-C, NIC Himachal Pradesh.

A powerful platform designed for tracking and monitoring the growth of digital payments, DigiDhan Dashboard has been adjudged winner under the Analyst’s Choice category. The Award was received by Shri I.P.S. Sethi, Deputy Director General, Shri O.P. Gupta, Scientist-D, Shri Ritesh Dwivedi, Scientist-C and Smt. Misha Kapoor, Scientist-C.

MyGov Portal developed by NIC HQ, Delhi has been adjudged as the winner of Jury’s Choice, and the Award was received by Shri N.K. Jain, Principal Systems Analyst, Shri Ravi Kumar, Senior Systems Analyst, Shri Rishant Kumar, Systems Analyst and other members of NIC MyGov Team.
NIC Officers felicitated by Hon’ble Governor, Jammu & Kashmir

Shri Satya Pal Malik, Hon’ble Governor of Jammu & Kashmir and Chairman of Shri Amarnathji Shrine Board (SASB), recorded high appreciation for the coordinated efforts made by NIC Jammu & Kashmir on 28th August 2019, for the smooth conduct of this year’s Shri Amarnathji Yatra. NIC Officers, Shri Abhay Kumar, State Informatics Officer, Shri Baiju Ubbott, Scientist-D and Shri Sideshwar Bhagat, Scientist-B were felicitated by the Honorable Governor for developing an online application for registration of yatris as well as yatri permit scanning and tracking using QR Code during the yatra. Shri Umang Narula, IAS, CEO, SASB was also present on the occasion.

Yatris were provided with an online facility for making payment after going through a series of authentication processes, thereby enabling them to download their yatra permit with QR code. This permit was later scanned at various gates starting from Jammu to the holy cave by J&K Police and CRPF personnel. This enabled the Shrine Board Administration to track the movement of yatris, along the yatra route, using web interface.