ODISHA STATE
Empowering Digital Odisha with 5Ts Mantra

Edited by
Dr. DIBAKAR RAY

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.

PRATIBHA SINGH
Dy. Director General
& SIO
pratibhasingh@nic.in

Dr. A. K. HOTA
Sr. Technical Director
& ASIO
ak.hota@nic.in

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, hashelped 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 (OSSOPCA) 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

Ensuring transparency at all levels, 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.

ELBSoft

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

> 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.
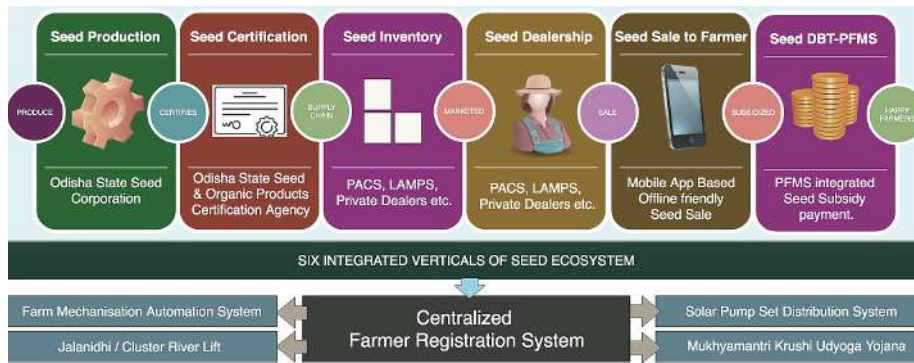>
> As a predominantly agrarian state, I look forward to working with the NIC team to continue using Information Technology tools with an integrated and holistic approach for overall rejuvenation of the agriculture sector.
>
> **DR. SAURABH GARG, IAS**
> **Principal Secretary**
> **Dept. of Agriculture & Farmers' Empowerment**
> **Government of Odisha**

Six integrated verticals of Seed Ecosystem

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 choices have been received in the financial year 2018-19 and 1008 quarters have been allotted in the system.

eAbhijog *(https://cmgcodisha.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)* 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://bharatmaps.gov.in/)*, which could be used as service for asset mapping and to provide GIS based decision support system to State Govern-

ment 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 Acqui-

sition 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)

Shri Naveen Patnaik, Hon'ble CM, Odisha launching online land revenue payment application

DARPAN being inaugurated at Jagatsinghpur

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 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

IWCRCM

Meant for industrial water consumption and monitoring, the Industrial Water Consumption & Revenue Collection Monitoring System (IWCRCM) 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

Odisha Team receiving National Award for eProcurement in the presence of Shri Ajay Sawhney, Secretary (MeitY), Dr. Neeta Verma, DG (NIC) and other dignitaries

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 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 Collectorates/ 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 i m p l e m e n t 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)* 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: Kausal Panjee

ServicePlus

Enabling delivery of electronic services to citizens, ServicePlus *(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 IT 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 Odishato meet the expectations and aspirations of its citizens. NIC Odisha is technically prepared to fulfill the visions of Digital India. ■