# Telangana State

## Harnessing innovation with cutting-edge Technologies for Digital Transformation

Edited by **REUBAN K**

NIC Telangana State Centre is the leading solution provider of ICT services in the State by Providing several innovative citizen centric e-Governance solutions in various sectors for State and central Government organisations by designing and developing around thirty five major digital systems, several of them won awards at national level. The district websites have been migrated to S3WaaS platform.

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Formed on 2nd June 2014, Telangana is the 12th largest state and the 12th most populated state in India with a geographical area of 112,077 km. and 35,193,978 residents as per 2011 census. The state of Telangana is constituted of 33 districts.

Since inception NIC has been playing key role in the e-Governance domain in the state. Under National Knowledge Network, 181 institutes of higher learning research, etc., in the state have been networked. NIC District Centres established in 31 districts and provided high bandwidth (34/ 100 Mbps) internet leased line connectivity. Network services being provided to 97 departments. Studio based video conferencing facility has been established at 27 districts. Email services are being provided to approximately 45000 functionaries in the State.

## ePDS – Targeted Public Distribution System

NIC Telangana has developed the first in-house ration cards management system, subsequently Supply Chain Management System, Aadhaar enabled public distribution system. Telangana lead the nation in implementing one nation one ration by digitizing over 88 Lakh Food Security Cards of 282.70 Lakhs of beneficiaries with 99.9% Aadhaar Seeding, Aadhaar enabled payment system integrated with banks, besides Mobile Wallets is a big achievement.

Telangana has also designed, developed and deployed successfully, a low-cost device agnostic indigenous block chain based POS and SCM solution.

## ePOS- FPShop automation

ePoS facilitates to adequately distribute the ese-PoS facilitates to adequately distribute the essential commodities to the ration card holders without any discrepancies of third parties or wrong distribution to unauthorised persons or stock diversion by restricting them to using biometric authentication and monitoring the transactions online as well as monitor the closing balances at every point of time. Retail transactions made in Fair Price Shops are captured online in real-time. Department introduced ePoS machines in 17034 FPS across the state. Ration items are distributed to all MDM Schools and Anganwadis in the State.

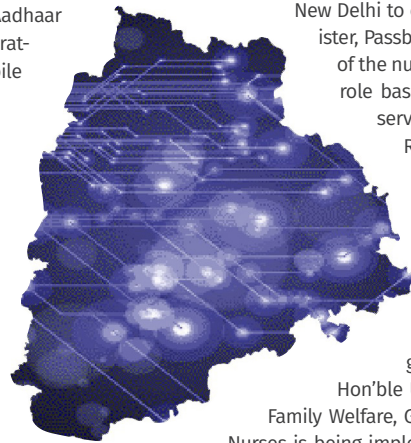## Supply Chain Management (SCM) (https://scm.telangana.gov.in)

SCM facilitates movement of stocks from FCI go-downs/ Buffer go-downs to Mandal Level Stock (MLS) points and Dispatch from MLS points to the door steps of Fair Price Shop (FPS) Dealers. Application ensures the availability of stocks at every level to process the flow of stocks from go-downs through FP shops for regular distribution of essential commodities to the NFSC(National Food Security Cards) beneficiaries and reduce the time and effort for data consolidation and maintaining the day-to-day Closing Balances including generation of truck chits, gate pass and to capture the information pertaining to the receipt of goods by FPS dealer.

## T-Ration Mobile Application

Mobile application facilitates common public and department officials in knowing the live position of commodity stocks and FPS information in English or local language Telugu.

## Nurses Registration & Tracking System – NRTS

NRTS is National Level web based Project designed and developed for Indian Nursing Council, New Delhi to enable creation of Live Register, Passbook and National Unique ID of the nurses across the country with role based privileges to handle the services of Enrolments, Primary Registration, Renewal of Registration, Registration of Additional Qualification, Reciprocal Registration, Issue of No Objection Certificate (NOC). NRTS Portal https://nrts.indiannursingcouncil.gov.in was inaugurated by Hon'ble Union Minister of Health & Family Welfare, GOI. Enrolment of registered Nurses is being implemented in 29 states across the country. Primary Registration is piloted in Delhi Nursing Council and is under implementation in 12 other State Nursing Councils.

## Telangana Samagra Kutumba Survey

Cloud and mobile based hybrid system designed developed and implemented to capture and create database of 3.86 crore citizens. APIs built for identification of beneficiaries of welfare schemes like Pensions & Food Security Cards, Single Women, 2BHK, etc.

## Registration and Stamps Department(CARD-CCA-IGRS)

(https://registration.telangana.gov.in)

NIC, Hyderabad has led the country in the end-to-end automation of all the state specific processes and all services in all 141 SROs, 12 DRs and 6 DIG offices across state. Approximate registrations per month are 123890, ECs issued are 138687, certified copies issued are 125000 in Telangana state and revenue generated is 4415 crores.

## Financial Accounting System

Generic, re-usable, custom configurable, workflow and cloud based solution to manage the financial accounting needs of departments/ organisations/ PSUs/ autonomous bodies in State, Central Govts, UTs, PSUs of the country. It facilitates budget estimation, preparation and sanctions, Daily, Monthly and annual accounting statements, payroll and audit management, etc., implemented in Endowments Department, Gurukulam, Tribal Corporation (TRICOR) of Telangana, Andhra Pradesh states.

## RBSK - Rashtriya Bal Swasthya Karyakram software

Workflow and role-based privileges web solution for the state government of Telangana to handle the services of Advance Tour Plan, Screening of Children, Referral and District Early Intervention Centre (DEIC). It captures health conditions of children in the 0-18 years age group and the child data is integrated with Child Info System of Education Department. The application has facilitated in improvement of the quality life of children through early detection of health abnormalities and its treatment. Using mobile version of application 61,24,000 Children have been screened since inception of this programme. http://rbsk.telangana.gov.in

## 'TS Weather App'

'TS Weather App has been developed for use of citizens and farmers of Telangana to access real time weather conditions like Temperature, Rainfall,


Shri Ch. Malla Reddy, MLA and State authorities during Inauguration of Ration distribution to Anganwadis through ePoS machine at Malkajgiri district


Shri K.Chandrasekhar Rao, Hon'ble CM, Telangana with his family members registering in the Samagra Kutumba Survey



## RythuBima (Farmer's Group Life Insurance Scheme)-Agriculture Dept

Work flow based Web application has been designed, developed and implemented by Agriculture Department, Insurance companies and banks for implementation of RythuBima Scheme (farmers Group Life Insurance scheme) launched by Govt. of Telangana.

- Farmers enrolled in 2018 : 30.24 Lakhs-Claim Settled – 17,780 and Amount Disbursed in Rs. 889 Crores
- Farmers enrolled in 2019 : 32.15 Lakhs-Claim Settled – 7,144 and Amount Disbursed in Rs. 357.20 Crores

## JEEVANDAN (Cadaver Organ Transplantation Programme) – Health Dept (http://jeevandan.gov.in)

Application facilitates online registration of Hospitals, Organ Transplant Centres & Non-Transplant Organ Harvesting Centres, Organ Donors, Organ Re-

RH, Wind and other related details depending on the Geo Location of users. It also provides village-wise and district-wise daily weather information and also facilitates next 24 Hours Forecast on weather.

## RythuBandhu (Agriculture Investment Support Scheme)-Agriculture Dept

E-Governance solution designed and developed for RythuBandhu scheme (AISS) in Telangana, much before the introduction of PM Kisan scheme in the country, to provide financial assistance @Rs 4,000 per acre to the Farmers of Telangana in both Kharif and Rabi seasons for purchase of inputs. Extended coordination to the Bank authorities, Treasury Department, Commissioner of Agriculture, Agriculture Officials of District, Division, Mandal and Agriculture Extension Officers. http://rythubandhu.telangana.gov.in

Farmers benefitted during :

- Kharif 2019 : 44.71 Lakhs - Amount in Rs. (Cr) 5,431.45
- Rabi 2019 : 29.39 Lakhs - Amount in Rs. (Cr) 2869.87

cipients and streamlined process of Approval/ Decline for Single or Multi organ Recipients. Organ Donors and Organ recipients under Jeevandan. Mobile app for Donor Pledge provided for general public to donate organs. 32 hospitals, 740 Organ Donors, 7,392 recipients and 1,899 Transplanted. System was customised and implemented in SOT- TO Gujarat state.

## Online Drug Licensing System (ODLS) (http://odls.telangana.gov.in)

ODLS is a work flow based software which facilitates online submission of Application, Licence fee Payment, Verification by officials, Grant/Renewal of Manufacture Licences, Sales Licences, approved laboratories, Changes in existing licences etc., application status tracking and monitoring etc. for the Drugs Control Administration (DCA), Govt. of Telangana, under 'Business Reform Action Plan 2017 of Dept. of Industrial Policy and Promotion (DIPP), Govt. of India.

## Veterinary Hospital Management System (Vhms)(http://vhms. telangana.gov.in)

VHMS is one of the first pilot projects started in Telangana State and in India as well, for computerisation of main Veterinary hospital functions like OP Registration, Cases Treated and Drugs Utilised, Drug Inventory, Diagnostics, Billing and MIS Reporting to management for effective supervision over Hospital Services. Livestock farmers and Owners of Pet animals are the primary stakeholders its services being utilised for the welfare of around 30 lakh dairy farmers with the help of designated veterinary institutions.

## E-LAABH (http://elaabh.telangana.gov.in)

eLaabh is Web based Benefit Management System for the welfare of Dairy Farmers and Fishermen for sanction and release of subsidy under various schemes offered by Government of Telangana in a highly objective and transparent manner. The dairy farmers and Fishermen need to register his/ her details as a one-time measure and then apply for various schemes as per their eligibility through this online system. The System generates Farmer Registration Number and Acknowledgement and same is sent through SMS to citizen. The applications received under various schemes through this system will be verified by the field level officers for their eligibility. Receipt of application will also be acknowledged through SMS to citizen. All the Eligible applications will be considered in a phased manner for sanction, as per budget availability and subsidy will be released to their bank accounts directly. As soon as subsidy is sanctioned, beneficiary will be intimated through SMS.

## Online Web Counselling– (eCounselling)

An in-house e-Governance solution for online counselling of admissions to professional courses in the state based on its specific rules and workflow. During 2019-20 year, it has covered Engineering(EAMCET), Polytechnic Diplomas (POLYCET), B.Pharmacy/ Pharma-D (EAMCET), Diploma in Phar-

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**Telangana State Government has adopted phase-wise implementation of the eOffice project. We have implemented the project in more than 70 HOD's/ 3 Secretariat Departments and 15 District Collectorates/ Police Commissionerates with 9000 users. The Government has constituted eOffice implementation team and the System Admin team for successful implementation across the State.**

**Now, the State Government is planning to extend the e-Office facility to all the Secretariat Departments, Directorates and subsequently to all the Districts.**

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### Jayesh Ranjan, IAS

**Principal Secretary**
**Information Technology, Electronics & Communication Department**
**Government of Telangana**

macy, Lateral Entry into B.E/ B.Tech (ECET) and MCA & MBA (ICET) disciplines, counseling of 3.5 Lakh students and 1.13Lakh admissions into 1200 colleges.

## All India Forest Sports Meet - AIFSM

AIFSM portal facilitates capturing details of various activities in national level sports events or-

ganised by forest department like beginning from registration of participants to Awards Presentations. SMS alerts and OTP authentication on each action and display of Live Results on LED Screens at Stadium. 2469 participants from 43 Institutions in 285 sports events participated from Forest Departments across the country. Various Championship trophies are given on the basis of live data furnished by the software.

## WaterSoft

The system facilitates monitoring of physical & financial progress of ongoing works, Funds accounting. It maintains the State level details of Habitations & Population, Habitations Coverage Status, Scheme wise Ongoing Works details. The Fund accounting module captures bills details.

## PRAJAVANI (CPGRAMS)

The web application facilitates submission of grievances by the aggrieved citizens to any Department of Govt. of Telangana and generates acknowledgement with unique registration number. Applicant can track status of action on grievance any time, from anywhere. It has been rolled out in 33 districts, 301152 grievances received and 246029 redressed as of now. http://cpgrams.ts.nic.in/

## Elections Software

NIC Telangana designed and developed Polling Personnel Management System under the guidance of CEO, Telangana and was implemented during 2018 TLSA and 2019 HoP General Elections. Using the system preparation of polling personnel database (Presiding Officers, Other Polling Officers and Micro Observers) to drafting election duties, generation of training orders, team formation and randomization of teams was done successfully.

## Mission Bhagiratha - WebGIS Application

PWA application (MB-TAP) is developed to capture Geo location details and photographs of each OHSR and Household beneficiary tap connections under Mission Bhagiratha programme aimed to pro-



Hon'ble Minister Shri Eatala Rajender, Civil Supplies Commissioner Shri C.V. Anand along with others officials launching T-Ration mobile app at Civil Supplies Bhavan in Hyderabad

vide portable and safe drinking water to all households in Telangana.

## Puramitra

An Integrated Service Delivery System for ULBs to facilitate Assessment, Calculation and online payment of property tax for all types of houses located in municipalities in Telangana state. The system is also integrated with Bill Collector Devices, Citizen Service Centres located in ULBs and Payment Gateway. Trade Licenses, Permissions, other taxes are in the process of integration.
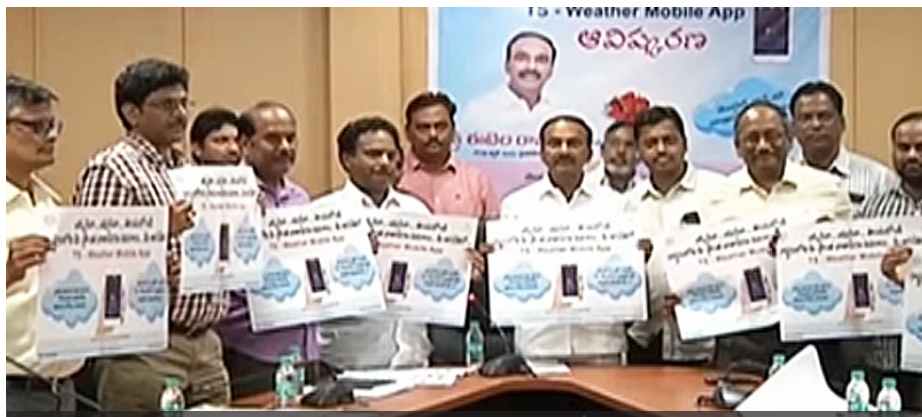
## Data Governance

Tools and platforms developed and deployed to help develop policies and measures on Data Governance. (1) DGMM is a self-checking tool to oversee the present practices followed in Data Management by various NIC units. (2) D4G is a digital platform deployed to facilitate quick adoption of DG principles and policies in various NIC projects. (3) SAKAL a digital platform facilitates description and sharing of context specific data in various sectors of e-Governance. (4) DRRI tool developed for use of NIC Data Centres to assess DR readiness for prevention of data losses. Best Practices on DG and eGov. services like roles, responsibilities and liabilities of users, NIC officers, other stakeholders have been prepared and shared among NIC project managers for easy adoption. (5) MDR application developed to facilitate registration of Metadata of Data elements of various entities, Master data, code directories used commonly within each sectoral domain and across the sectoral domains of governance for semantic consistency, seamless exchange and sharing of information or data. (6) DLMS platform developed to facilitate preservation, archiving of data, privileged access during its life cycle, where the data present in organisations are mostly in unstructured form. Capacity building and guidance programmes on Data Governance are being organised to various units of NIC on priority and need basis.

## Unified Birth and Death Registration (UBD)

The application facilitates registration of Births & Deaths, corrections, name inclusions under the statutory provisions in Local Bodies of Telangana. Digitally signed registration records are used as legal documents for proof of age, identity, nationality, inheritance and civil status.

## ECOSTAT

Web based solution for covering the activities of Agricultural, Industries, Rainfall and Prices statistics being collected by the Directorate of Economics and Statistics, Telangana State. Statistical Rain Fall Data available on the portal are being used by various departments. Integrated rainfall data from IMD, TS-DPS and DES are being captured from June'2017 onwards. Statistical Price is being collected at 68 centres across the Telangana. Crop Estimation Survey for Rabi and Kharif Seasons was completed. Index of Industrial Production (IIP) Value & Consumer Price Index (CPI) both rural and urban across Telangana is



Inauguration of TS Weather App by Hon'ble Minister Shri. E.Rajender



Hon'ble Minister Felicitating Shri K. Rajasekhar, DDG & SIO, NIC(TS)



RythuBandhu web page

being calculated monthly. Number of Industries participated are 244212.

## HORTNET

Hortnet (https://hortnet.gov.in) ensures vertical and horizontal transparency in fund management as the beneficiary applies online, and is processed through a workflow based system and subsidy is released through DBT into the bank account of the beneficiary and also, integrated with PFMS portal for DBT. During the financial year 2019-20, 4972 no. of applications were filed, and 2912 no. of beneficiaries received subsidies to the tune of 1.51 Crores.

## e-Hospital

Cloud-based application is a one-stop solution which helps in connecting patients, hospitals and doctors on a single digital platform. 33 Hospitals are on-boarded and nearly 25 lakh transactions have been done.

## eOffice

File Management System(eFile) under eOffice Product Suite implemented in 70 departments and 19 districts. It automates the processing of files and receipts. This includes file creation, file movement in the workflow, tracking and its management.

## AEBAS

145 Central Government Organisations and 130 State Government Departments have been on-boarded to AEBAS in the Telangana State.

## ePrison

An online system covering the entire lifecycle of an inmate inside the prison is implemented in 3 Central Jails, 7 District Jails, 40 Special Sub Jails and 23 Sub Jails of the State.

## SPARROW

SPARROW facilitates online submissions and tracking of Annual Performance Appraisal Reports (APARs) of IAS/ IPS/IFS / Defense officers and also enables filing of Annual Property Returns.

## IVFRT

An online system for tracking of foreign visitor to India implemented at FRRO Hyderabad, FRO in Districts and Hyderabad Airport. NDAL-ALIS – Implemented in all districts to update and maintain centralised National Database for Arms License.

## eProcurement

eProcurement facilitates the procurement process from tenders creation to award of contract. It

has been implemented in 20 departments.

Awards and Accolades: NIC Telangana has won several State and Central Level e-Governance awards for its excellent applications developed and showcased.

- eIndia Certificate of Recognition Award 2014 - Electronic Public Distribution System - ePDS for the Department of Civil Supplies, Govt. of Telangana, at Kerala
- Digital Bharat Project of the Year Award 2015 ePDS: Food & Civil Supplies Department & NIC, at Digital Bharat Summit
- E-lets Knowledge Exchange project Award 2015-2015 National Food Security Cards Telangana at Goa
- Govt. of Telangana eGovernance Excellence Digital India Award 2015, National Food Security Cards Telangana Govt. of Telangana, at Hyderabad
- Skoch Gold & Skoch Order of Merit 2016 Rastriya Bala Swasthya Karyakramam, at Hyderabad
- Skoch Gold award 2016 2016 NIC electronic Point of Scale (ePoS) for Telangana Food Security Cards Skoch Conference, at Hyderabad
- Skoch Platinum Award 2016 Land Regularisation Management System (Sadabinamee) Hyderabad
- Skoch Platinum Award 2016 MaaBhoomi (public portal for Land Records Information) Skoch Conference, at Hyderabad
- Skoch Order of Merit Award 2016 Issue of Loan Eligibility Cards. at Hyderabad
- Skoch Platinum Award 2018 RythuBandhu (Agriculture Investment Support Scheme), at New Delhi
- eINDIA 13th Digital Transformation Award 2018 Initiatives for Farmers Welfare Rythu Bandhu, RythuBima and Online Subsidy Seed Distribution, at New Delhi
- Digital India Awards – Web Ratna Gold 2018 WebRatna award 2018 for S3waaS compliance district website Mahabubnagar, at New Delhi
- SKOCH Gold Award (Governance/ eGovernance) RythuBima and OSSDS 2019 Governance/eGovernance Awards, at New Delhi
- CSI SIG eGov "Award of Excellence" for JEEVANDAN 2020 eGovernance Awards – Project State Category - JEEVANDAN (Cadaver Organ Transplantation programme) to Health, Medical and Family Welfare Department, Govt of Telangana and NIC Hyderabad, at CSI Annual Convention 2020, Bhubaneswar

## Summary

NIC State Centre, Telangana has been instrumental in providing assistance and technical expertise aimed towards making the lives of the citizens easier by improving access to various eGovernance schemes. With its dedicated man-power at District Informatics Centres, State Centre and other Sub centres, NIC Telangana stands committed to leave a lasting impact in e-Governance arena in the State.



Shri C. Laxma Reddy, the then Hon'ble Minister for Health, Medical & Family Welfare, Govt. of Telangana (2nd from Left) launching ODLS application

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