

National Informatics Centre West Bengal :: Newsletter

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"Keep your face to the sunshine and you cannot see a shadow!" - Helen Keller



From the desk of SIO

Chayan Kanti Dhar, DDG & SIO, NIC WB

Moving towards 1-Government Eco-System

The good news is that many state governments are making significant strides toward seamless service delivery that citizens and businesses have come to expect from their government. Taking e-governance to new heights requires stakeholders to craft and adopt a comprehensive, interoperable digital government architecture.

First, adopting the Eco-System principle instead of a domain-based system approach is needed. The key principle of *1-Government Eco-System* is a paradigm shift from the domain perspective to an Interoperable, Faceless, and Inclusive Digital 1-Government interface facing their citizens and businesses.

An Eco-System cannot be built - it must evolve. 1-Government Eco-System can be built by design and implementing interface layers on top of in-silos systems in a phased manner. In the absence of interoperable digital government architecture, the uses of technology in governments continue to grow unevenly and in silos, defeating the basic purpose of end-to-end seamless service delivery.

From the technology perspective, ensuring Interoperability, Open Standards, Security and Privacy by Design, Open and Close User Group (CUG) APIs, and Core Registries as Single Sources of Truth should consist initially 1-Government Digital Building Blocks beside others. An incremental and

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e-Governance

P.B. Salim, IAS, Secretary, Monitoring & Coordination, CMO, GoWB



West Bengal has been at the forefront of implementing e-Governance initiatives to improve delivery of public services and increase transparency in governance. The State has recognized long before the need for administrative reforms to enhance capacity of administrative systems in carrying out goals that secure access, equity and accountability at the grassroots. In the direction of this transformative change, e-governance has emerged as one of the most significant tools of governance, improving the quality of administration while providing a responsive, accountable and transparent interface between the citizens and the government.

Use of ICT in government facilitates an efficient, speedy and transparent process to bring public service at doorsteps. The State Government in West Bengal has adopted a number of key e-governance initiatives bringing ease in day-to-day living of the people of the State. The impact of these G2C initiatives is multifold. A detailed discussion on these initiatives is beyond the scope of the article, but be it mentioned here that contributions of unique interventions like the CMO Grievance portal, COVID-19 ex-gratia application portal, Bangla Sahayata Kendras, Banglar Bhumi, Online Paddy-procurement, Ease-of-doing Business portal, e-Trade license, e-Mulakat and many others are immense. Some interventions, however, have simplified the administrative processes, such as the Samanyay, IFMS, e-Abgari, HRMS, GRIPs to name a few.

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In News



Shri Chayan Kanti Dhar,
Deputy Director General has
assumed charge as State
Informatics Officer of NIC
West Bengal on 01-12-2022.

Prior to his joining at NIC West Bengal, he has served nearly twenty years as SIO in the state of Tripura.

Visit of State Coordinator

Dr. Shubhag Chand, Deputy Director General and State Coordinator, NIC West Bengal, has paid a visit to NIC State Centre at Kolkata during 17-19 Oct 2022. During his visit, Dr. Chand, accompanied by the SIO, ASIO and other senior Officials of NIC, has visited Dr. H. K. Dwivedi, IAS, the Chief Secretary of West Bengal, when the CS has expressed his satisfaction for



the services being rendered by NIC and has given a patient hearing to the root causes faced by NIC-WB with respect to

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e-Governance*continued from Page-1..*

Many interventions are compatible with cell-phones, such as the KhadyaSathi, Selfscan, Paribesh, Samiksha Apps.

In response to the ever-expanding challenges of governance, the e-governance initiatives, which are well-documented in physical and electronic forms, are being innovatively used by the State Government Departments and the districts alike to distribute welfare gain to the people at the last-mile of the development endeavor. As technologies continue to evolve, the State Government has been bricked to respond to the challenge of leveraging technology to the betterment of peoples' life, for whom alone development matters.

In News**News & Events****Visit of State Coordinator***Continued from Page 1..*

infrastructure, implementation model, manpower and other related issues.

The State Coordinator has also visited Dr. Manoj Pant, IAS, the Additional Chief Secretary, GoWB. The ACS has also categorically accepted that NIC's infrastructure services comprising of Video Conferencing, e-mails and eOffice kept the entire government working during and after the unprecedented Covid-19 disaster.

On a later date Dr. Chand has visited Purba Medinipur District along with the ASIOs and had a fruitful meeting with Shri Purnendu Kumar Maji, WBCS, DM and Smt. Divya Murugesan, IAS, ADM (Dev) of the district.

Digital India Award

Duare Sarkar (Government at the doorstep), a two-fold ICT-driven mass outreach initiative of Government of West Bengal which is designed & developed by NIC has received the Digital India Award 2022 (Platinum) under Public Digital Platforms; Central Ministries, Departments and States category.

Under the Duare Sarkar project, twelve crucial public services under select pro-poor and citizen centric schemes covering education, health insurance, social justice, social security coverage, poverty alleviation/livelihoods including financial inclusion, etc. are delivered at the doorsteps of the people through the possibly world's largest number of government outreach camps organized at the levels of gram panchayat and municipal wards.

In Focus**Enabling Responsive Governance through Grievance Monitoring****P.B. Salim, IAS, Secretary, Monitoring & Coordination, CMO, GoWB**

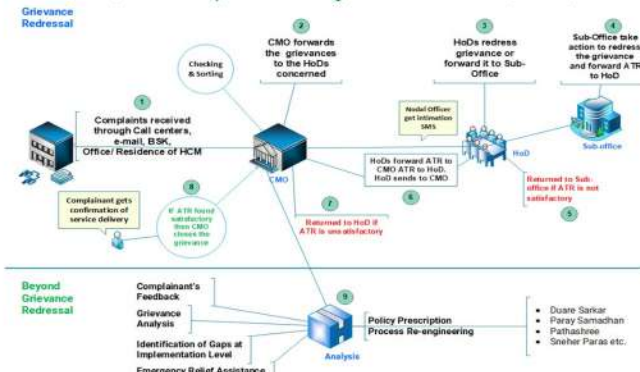
Back in Jun 2019, the State Government initiated the action-oriented grievance monitoring project for public grievance redressal and used the grievance inputs to undertake process re-engineering in reaching out common people. The grievance portal was developed with a robust back-end user interface that connects 53 departments

with 23 Civil and 28 Police Districts, 6 police Commissionerate alongside 4330 offices at sub-district levels. The grievance redressal, as an agenda is reviewed by the Hon'ble Chief Minister at administrative review meetings regularly.

This e-governance initiative has made public service delivery more inclusive and transparent by redressing public grievance within set service level, continually analyses feedbacks and suggestions and provides meaningful insights to the policymakers. Time and date stamp at each level, pendency checker and real-time status update etc. helps to ensure accountability and transparency in system.

Third party audit by the Pratichi Trust India reveals that 45% of grievances were voiced by women. Moreover, 67% of requests came from rural areas whereas 33% came from urban areas. Social category wise grievance distribution shows uniformity, 52% from general caste, 20% from SC & ST and 28% from other Backward classes. This project enables citizens to have their concerns voice to the highest authority through toll free call centres, SMS, email, and directly through Bangla Sahayata Kendras (common service centre up to GP level).

Since inception the Cell handled more than 11.30 lakh grievances with 98% disposal,



facilitated pensions to 0.6 million aged, widow and physically challenged people, redressed around 3550 grievances relating to domestic violence, 0.04 million families to get shelter.

This initiative also helps to provide financial assistance to 15.9 million women, health coverage to 13.5 million, digital ration cards to 3.7 million people, reached out to nearly 4.0 million people for providing food and shelter and another 2.0 million migrants with travel assistance during the Covid-19 crisis, employment assistance to 20,077 people under various government initiatives. Based on grievance analysis relating to roads/ bridges, 16,000 plus Km Road construction/reconstruction project - "Pathashree" was initiated by the Government.

Monitoring of Programme Implementation and Grievance Cell, Chief Minister's Office received many accolades, Technology Sabha Award in 2020, Skoch Foundation Digital India Platinum Award in 2020 and "Award of Excellence" of 20th CSI SIG e-Governance Awards in 2022. This project was featured in the "Compendium of e-Governance Initiatives" in 2022 of DoPT, GoI.

-No one left out, no one left unheard-

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e-Prison**Roll Out of e-Prison in West Bengal:**

ICT based facilities for Correctional Homes (Jails/Prisons) in West Bengal, were initiated in 2004 by NIC with Prisoner Information System in the stand-alone system.

With the change of technology, the Application has evolved from a Client-Server platform to a Web-based solution, the ePrison, in the year 2015 by migrating all legacy data with the active help and support from the ePrison Central Team of NICHQ. All 60 Correctional Homes of the State were on board with the ePrison suite during 2016-17. Directorate of Correctional Services and Department of Correctional Administration, GoWB is now leveraging the full advantage of

e-Prison suite in monitoring activities like MIS generation entailing court activities such as the production of inmates, their releases and transfers to other correctional homes and information exchange with NCRB etc.

Under the ePrison suite, all the prisoners' data including under trials and convicts are captured in digital format including photographs and fingerprints.

Currently, the following modules are running in all the 60 Correctional Homes in West Bengal:

- Visitor Information System
- Hospital Information System
- e-Mulakat

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Central Project

Moving towards I-Government Eco-System

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minimalistic approach is preferred in the government environment.

The foremost requirement to craft a I-Government Eco-System is to embed and use the repository of citizens' digital identity, readily available as-a-service from UIDAI. For NIC-developed e-Gov solutions, Aadhaar Data Vault (ADV) services are free of cost as of now by availing Sub-AUA and Sub-KUAs under NIC paying requisite licence fees to UIDAI. ADV services are also available from NIC on a chargeable basis for applications not developed by NIC but hosted in state Data Centre. For social sector beneficiary schemes, authentication of a beneficiary would be preferred at any transaction point, through Aadhaar-based biometric processes, to the beneficiary by ensuring the de-duplication, authenticity and security of financial transactions.

API Exchange Platform is needed to build secure, interoperable, real-time communication between in-silos applications for large-scale data exchanges. An API Exchange Platform supports scalability, high availability, load balancing, and shared state

without compromising performance. Adopting NIC API Exchange Platform (NAPIX) for APIs allows solution developers to design APIs quickly, integrate them easily, collaborate effortlessly, and scale securely and reliably.

The public-facing e-Sign facility is needed to embed to ensure document authentication proof in cyberspace. A legally-binding eSigning facility must embed in digital solutions to submit signed documents from citizens and officials for validity in a court of law. Considering the large volume of e-signing requirements, exclusive e-Sign Nodes must be provisioned. In some states, NIC has housed such e-Sign nodes as technical custodian on behalf of states to leverage secure, single point - faster integration, technical expertise and overall lifecycle management of e-Gov solutions.

Citizens should have access to multiple services with one set of credentials. It should allow the citizen to log in once and move seamlessly between services. 'MeriPehchaan-JanParichay' is a Single Sign-On (SSO) Platform that acts as one digital identity for multiple applications or platforms. Override the hassles of numerous login credentials for the various citizen-centric government services with an added security layer by

providing a robust authentication mechanism. It allows the citizen to log in once and move seamlessly between services. NIC offers Single-Sign-On (SSO) services free of cost as of now.

SMS Metadata Platform - Mobile Devices are now mainstream last-mile service delivery channels connecting citizens and businesses that enable digital delivery of public services at their doorstep. Many digital services nowadays are retrieved from tiny URLs delivered by SMS. Metadata adds data to messages that can be interpreted and processed to reveal more information about the service offered by a message containing service-specific URLs. Metadata is like a tag that is added to an outbound message but is not part of the content of the message itself. Service-specific SMS MetaData must be kept in an SMS MetaData platform to analyze and filter before directing to transactional servers. Besides robust ICT infrastructure, provisioning and implementing the above digital building blocks are prerequisites for interoperable digital government for end-to-end, faceless service delivery to achieve a transformational I-Government objective, which is responsive, transparent, and accountable to their citizens and businesses.

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TechSpace

Blockchain

Blockchain is an emerging and revolutionary technology which is significantly gaining popularity in today's IT world. Blockchain is a decentralized, highly secured and transparent distributed ledger technology that makes the history of any digital asset unalterable and works without the involvement of any intermediary.

In layman's word Blockchain is a digital database where transaction details are saved in encrypted blocks of data which are interconnected or chained with each other and thus the name 'Blockchain'.

After its introduction by 'Satoshi Nakamoto' in the year 2008, Blockchain gained popularity initially for its association with cryptocurrency, the first and well-known one being the 'Bitcoin'. Since then it has evolved in many ways and is being adapted in businesses and industries to reduce security risks and bring transparency in business contracts and transactions. Some well accepted domains are the supply chain management, healthcare, banking and insurance, real estate, record management etc.

Blockchain and Bitcoin

Till very recently these two terms were used interchangeably. We are to understand that Bitcoin is a form of cryptocurrency like many others in the family and Blockchain is the technology behind. A cryptocurrency is a digital currency that uses cryptography to make virtual transactions on a decentralized

system over the internet without the involvement of any central issuing or regulatory authority. Bitcoin, the first and most well-traded cryptocurrency was launched in the year 2008.

On the contrary Blockchain is a decentralized distributed ledger or database and is the underpinning technology behind the creation and maintenance of Bitcoin transaction ledger.

How Blockchain works

Blockchain, also referred to as Distributed Ledger Technology (DLT), makes the history of any digital asset transparent and immutable by using a decentralized network and cryptographic hashing. The network is composed of interconnected nodes of computer systems or servers and is maintained by a team of volunteers known as miners.

The three major concepts of Blockchain are blocks, nodes and miners. Every chain consists of multiple blocks and each block has three major elements, the data, the nonce and the hash (a digital unique identifier).

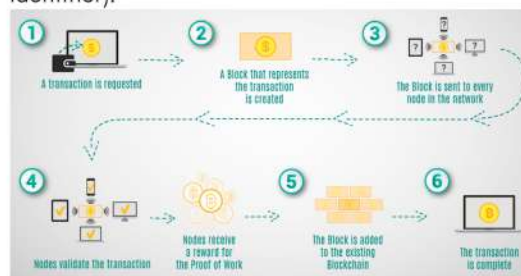


Image Source: Internet

Blockchain Technology

As the number of transactions grow, new data blocks get added to the chain and each new block contains a cryptographic hash of the previous block, a timestamp and transaction data.

The nonce is a random number generated when a new block is created which then generates a cryptographic hash which gets permanently attached to the nonce.

Miners are responsible for creating the blocks which gets added to the chain and the process is called mining. Every new block added to the chain has its own unique nonce and hash and also contains the hash of previous blocks in the chain.

Public and Private Blockchain

Public Blockchains are non-restricted, open to all blockchains where anyone can contribute and get access.

A Private Blockchain on the other hand allows only verified users or nodes with some form of approvals having limited access to activities.

Features and Benefits

- Direct transactions between sender and receiver
- Eradication of intermediaries like banks or any central authority
- Reduced cost and time of transactions
- Removes possibility of tampering and cybercrime

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District at a Glance

Bankura

<https://bankura.gov.in/>

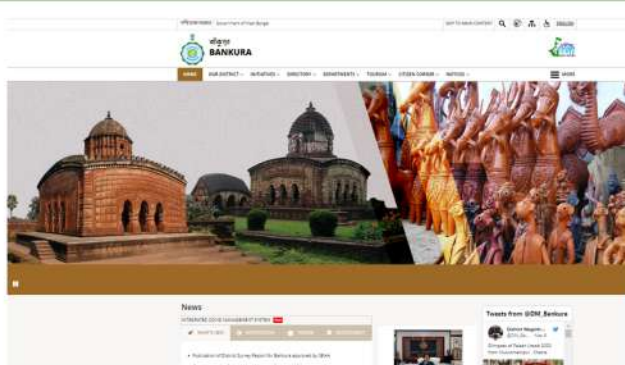
Bankura district, located in the north western part of West Bengal, has its headquarters at Bankura town. The Damodar River flows along the northern boundary of the district. Bankura district is bounded by Purba Bardhaman and Paschim Bardhaman districts in the north and east, Paschim Medinipur district in the south and Purulia to the west. The district being a popular tourist destination has a forest cover of 21% and is considered as a heritage place that speaks the language of 'terracotta'; with a rich history where one can embrace the religious warmth and explore spectacular & fascinating artwork in different forms.

Administrative Setup

Bankura district is divided into three subdivisions namely Bankura Sadar, Khatra and Bishnupur, three municipalities and 22 development blocks.

ICT Initiatives

NIC Bankura has been playing a vital role in implementing



various ICT initiatives in district administration. Implementation of eOffice in the entire district administration has made the office administration very easy, transparent and paperless with almost 400 users operating through eOffice regularly. *SDO office of Khatra was one of the first sub-divisions in West Bengal to go paperless with the help of NIC's eOffice.*

National and State Level Projects

The district has implemented many key national e-Governance projects like e-Office, e-Procurement under ICJS (Interoperable Criminal Justice System), iRAD (Integrated Road Accident Database), e-Tender, e-Auction, NDAL (National Database for Armed License) etc.

Key state-level projects like 'Duare Sarkar', 'Lakshmi Bhandar', 'Jai Bangla', 'Kanyashree', 'Rupashree', OSCAR, Buchitra etc. have been implemented at district level.

NIC District Centre

NIC Bankura district office has an operational VC system of 1 Gbps bandwidth which is presently expanded to 4 separate VC studios at the Collectorate Building on request from the district administration to address the high demand of virtual conferences happening at present. NIC Bankura district centre is providing direct network connectivity to 155 nodes within the Collectorate premises. NIC Bankura district office is made entirely Wifi enabled with the help of NIC Wifi access points. NKN, high-speed network connectivity has been established at Bankura Sanmilani Medical College.

The district administration of Bankura has been very proactive for various State and National level awards and NIC Bankura has played a very crucial role in assisting the administration in this area which has helped the administration in grabbing awards like Skoch Award, Deen Dayal Upadhyay award and various other national awards.

The district portal developed in S3WaaS is the one stop portal for the citizen to know about various Government initiatives and latest proceedings of the district. Along with the district portal of Bankura, a dedicated portal has been implemented to cover the tourist spots of the entire district along with handicrafts, art and crafts, wildlife, travel plans and blogs for the tourists.

Conducting recruitment for various departments attached with the district administration is a regular affair in Bankura district, and to digitize this process, an online recruitment portal is made by NIC Bankura which enables online application and admit card generation.

NIC Bankura developed one analytical dashboard for MGNRES for daily monitoring of the job enrollments within the district based on geographical areas like subdivision, block, and gram panchayat. NIC Bankura also assisted in



"It is my pleasure to know that NIC will be publishing the information and communications technology (ICT) activities that are carried out at Bankura district in their quarterly newsletter, UTTARAN.

The district Bankura is rich in numerous sectors which include tourism, art, handicrafts, agriculture, mining, etc. Multiple e-Governance initiatives are considered in the district in mentioned sectors, and these interventions are very well highlighted to our citizens through our district portal beside, social media platform, Twitter and Facebook. Of late, NIC's e-Office has played a vital role in clean and transparent file movement and is a great initiative towards a paperless office when the entire world is addressing issues of overconsumption with optimization and virtualization. Promotion of tourism with a dedicated portal and geo-tagging of various geographical elements throughout the district are some of the key initiatives taken recently. These initiatives are helping in reaching out to the last mile at ease.

We are always working towards better governance with the help of ICT activities, and NIC Bankura is providing the desired e-Governance services and support, ICT infrastructure, Video Conferencing, and technical consultancy as and when required by the district administration.

I congratulate and wish success to the entire NIC team including the NIC Bankura district unit for their contribution towards various e-Governance services and their constant support.

Smt. K. Radhika Aiyar, IAS
District Magistrate & District Collector
Bankura District

development of an analytical portal for Operation-Pushti which was made to track the malnutrition children under various ICDS centers.

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