

UTTARAN

National Informatics Centre West Bengal :: Newsletter

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"It does not matter how slowly you go as long as you do not stop!" - Confucius



From the desk of SIO

Chayan Kanti Dhar, DDG & SIO, NIC WB

Ensuring Data Privacy and Security

With the rise of digitalization, digital platforms of Government and private companies are collecting more data than ever. This has created a situation where citizen gives away their personal information to avail of e-services from the Government and other organizations without realizing its implications. With the massive increase in the Government's e-service delivery platforms, a considerable volume of Personal Identifiable Information (PII) and financial data is captured at every transaction point. Government Organizations are legally obliged to protect their citizens' data from being lost or stolen and ending up in the wrong hands. So, securing data from cyber attacks is crucial to preventing the Government's reputational risk- a challenge ahead for many organizations.

A data security threat is any incident that could jeopardize data confidentiality, integrity, or availability. Relentless data security threats come from hackers, external state actors, insider threats, natural disasters, and human error. Data security refers to policies, methods, and means to secure personal data and is about proper usage, collection, retention, and safe storage of data. Consent-based usage of captured data is also an urgent necessity.

A data privacy policy is a legal document that details how website visitors' personal data may be used. At the very least, it needs to explain how a website collects data, what

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Message from Shri P. Mohangandhi, IAS

Chairman & Managing Director, WBMDTCL, GoWB



Information Technology (IT) plays a crucial role in state governance, offering several significant advantages and benefits. West Bengal through its various initiatives has constantly endeavoured and successfully brought citizen centric services right to the doorstep of the people. E-District, E-Treasury, Silpasaathi, CMO grievances cell, Minor Mineral e-Supply Chain Management System, West Bengal Land Records and Registration System (WBREGS), e-tendering system, Samanyay, IFMS, e-Abgari, HRMS, GRIPs are but a few examples of the plethora of IT enabled and citizen centric e-governance measures of the state.

This has helped the state administration tremendously for the following reasons:

Efficient and Transparent Service Delivery: IT enables the automation of administrative processes, making government services more efficient, transparent, and accessible to citizens. It also streamlines the delivery of services, reduces bureaucratic red tape, minimizes corruption, and enhances the overall citizen experience.

Improved Government-Citizen Interaction: IT facilitates direct and real-time communication between the government and its citizens. Online platforms, email, social media, and mobile

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In News

News & Events

Election Manpower Management System for WB State Election Commission

Single instance, single platform web based solution for Election Manpower Management System is developed for West Bengal State Election Commission. The application caters different composition for polling parties viz. four members and five members parties, male and female parties etc. with multiple

deployment features.

Employee data can be captured directly from the respective offices with their registration.

The application has been used in recent Panchayat Election at the State and deployment of more than four lakhs polling officers has been catered successfully.

Web portal for Tourism, GoWB

A dynamic web portal developed by NIC for the Department of Tourism, West Bengal has been demonstrated in detail by the Hon'ble Minister-in-Charge Mr. Babul Supriya to the delegates of Indian Hoteliers' Association and other Stakeholders of Tourism Industry on 14th June at Taj Bengal.

Data Privacy and Security

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data they collect, and what they plan to do with that data. Without permission, an organization may not transfer data obtained for a specific purpose to another organization. Data privacy policies and protection safeguard sensitive data against loss, manipulation, and misuse. The Hon'ble Supreme Court of India established the right to privacy as a fundamental right under Article 21 of the Constitution of India as part of the right to life and personal liberty. However, The Information Technology Act, 2000 (IT Act) and Indian Contract Act, 1872 are currently the data protection legislation in India because there isn't any special legislation for this matter yet. A data privacy and protection bill is under consideration by the parliament.

Data privacy is typically applied to personally identifiable information (PII) and personal health information (PHI). This includes financial information, medical records, ID numbers, names, birthdates, and contact information. The primary aim of data security is to protect the data that an organization collects, stores, creates, receives or transmits. Compliance requirement is also a significant consideration by the Government. It doesn't matter which device, technology, or process is used to manage, store, or collect data; it must be protected from misuse or loss.

Data needs to be protected when on transmission and when data is at rest. Keeping a massive volume of data at rest in transactional servers is always a threat from cyber attacks, including ransomware attacks or loss/ damage. We should keep data for as long as we need it in a transactional server. Such data must be appropriately shipped, encrypted, and kept in a safe system. Also, removing data you no longer need will free up storage space. This also means you have less personal information at risk if you suffer a cyber-attack or personal data breach. There are various techniques and tools to encrypt data on transmission and data at rest. Digital platform owners, regardless of Government or corporations, must protect private data and strictly use or reuse based on consent. The collection of PII and its use or re-use will be strictly done through informed consent. Formulating a broad framework for consent-based access to PII is necessary, and protecting historical data or data at rest in systems from any data breach is

In Focus

State Project

Minor Mineral Supply Chain Management System (e-WBMDTCL)



West Bengal is one of the top states in India in terms of mineral production accounting for about one-fifth of total mineral production. West Bengal Mineral Development & Trading Corporation (WBMDTCL) under the Industries, Commerce & Enterprise Department strives to assess for converting mineral resources to marketable commodities for mining in a

Message from Chairman & MD, WBMDTCL

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applications provide channels for citizens to express their grievances, seek information, and provide feedback. It enables governments to promptly address citizen concerns and actively engage with the public, fostering a participatory democracy.

Enhanced Data Management and Analysis: IT systems allow governments to collect, store, and analyze vast amounts of data efficiently. This data can be utilized to monitor and evaluate the performance of various government programs, identify trends, and evidence-based decision-making, leading to more effective and targeted public policies.

Cost and Time Savings: IT automation eliminates manual paperwork, thus improving process efficiency. This leads to significant cost and time savings for both the government and citizens due to the reduced need for physical infrastructure and manual handling of paperwork, resulting in resource optimization.

In summary, IT in state governance has been a primordial reason for the successful development and socio-economic growth in the state. The state remains committed through its myriad schemes and IT intervention to maintain itself as a leading state in the e-governance sector in times to come.

essential. Multiple tools and techniques are available to ensure data security and privacy, which must be deployed and configured to avoid data breaches.

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scientific and sustainable manner.

The Government embarked on a major process-reengineering initiative for the WBMDTCL in 2021. Minor Mineral Supply Chain Management System (e-WBMDTCL) is ICT driven process re-engineering initiative for end to end tracking of Minor Mineral Mining & its Intra- & Inter-State Movement through a robust mechanism for Digitization of Minor Mineral Mining Blocks, Lessee and Vehicle Registration, e-Collection of Royalty & Fees, e-Issuance of Excavation Permits & Road-Challans for movement within State / Outside State, LOI Issuance to H1 Bidder, Mining in Raiyati Land, Mobile App driven Enforcement etc.

The project is built on the methodology of "Reduced discretion - Electronic workflow - Electronic service delivery" adopting a web and Mobile device enabled delivery mechanism implemented at <https://mdtcl.wb.gov.in> to ensure the delivery of services in a timely, transparent, more accessible and reliable manner.

With the introduction of e-WBMDTCL, it has been possible in (a) Reduction in compliance burden and business cost for the legal Minor Mineral miners in the state and near elimination of illegal Minor Mineral miners as they have been shut out of the E-system and no longer have recourse to manual processes duplication. (b) Increased revenue for the State (c) Centralized database enabling data analysis for field level verification to promote legal mining, strategizing enforcement measures, planning future Minor Mineral mining auctions, providing trends and insights for future policy framing and decisions and (d) Integration of enforcement wings and availability of data for Police, Land Revenue and Transport Departments to undertake legal action in case of any violation through the enforcement App.

With Online and Mobile App aided solution, the project has greatly empowered Government with enhanced Enforcement and Regulatory capabilities while also creating an enabling environment for Ease of Doing Business in the state. This has resulted both in increase in revenue for the state government as well as an end to end electronic chain management supply system for the minor minerals in the state.

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Spotlight

Central Project

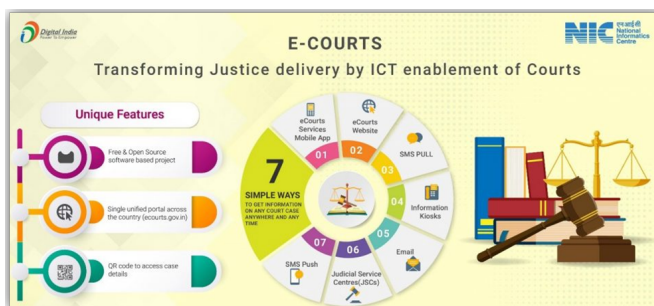
National e-Courts Projects

e-Courts is a mission mode project of the Government of India and was conceptualized on the basis of the 'National Policy and Action Plan for Implementation of ICT in the Indian-Judiciary-2005', submitted by e-Committee (Hon'ble Supreme Court of India), with a vision to transform the Indian Judiciary by ICT enablement of courts. The entire project is built on the foundation of open source technology, FOSS.

e-Courts project adopts the Core-Periphery approach of software development.

The CIS National Core 3.2 is implemented at District and Subordinate Courts, and CIS National Core 1.0 is implemented at High Court at Calcutta (Original Side, Appellate Side) principal bench, Jalpaiguri Circuit Bench and Andaman Circuit bench.

More than 50 nos. of periphery applications have been developed for the Calcutta High Court principal bench, Jalpaiguri and



Andaman Circuit benches to meet the local requirements.

Key initiatives/Developments at Calcutta High Court:

- e-Pay integration with West Bengal-GRIPS (payment gateway) for all kinds of payment related to judicial cases.
- Implementation of e-Filing 1.0 for Original side and Appellate side at Calcutta High Court has been done.
- Mobile app for display of important information related to

concept aimed at eliminating presence of litigant or lawyer in the court and adjudication of the case online]

- Display Board facility has been developed for showing the currently listed running cases court-wise at both the CHC Principal Bench, Jalpaiguri and Andaman circuit benches.
- A dynamic website for Calcutta High Court has been developed.

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TechSpace

NIC API Exchange Platform (NAPIX)

Application Programming Interface (API)

can act as a gateway to e-governance data and services by not only promoting software inter-operability for government operated applications but at the same time provides secure and controlled access to the data and the services of the applications to stakeholders, including partners and citizens. APIs provide speedy application development, wider reach to relevant and updated data and content; and automation along with efficiency.

API portals are basically bridges between API providers (publisher) and API consumers.

NIC API Exchange Platform (NAPIX) basically offered centralized platforms for API management of e-Governance applications and systems. API provides easy, seamless and unified connectivity to various stakeholders including government departments, government undertaking and developers within a secure and reliable environment, facilitating integration and promoting collaboration and innovation.

Key capabilities of NAPIX:

- Dedicated Sandbox Environment for testing.
- Centralized platform for API discovering, testing and consumption.
- Seamless experience for publishers and consumers.
- Ease of API discovery - seamless search.
- Real time monitoring.
- Data integrity - fully accountable data exchange.
- Secured interconnectivity.
- Manage API life cycle - End to end API management

API security:

- Open authorization - Grant access to valid token
- API key based authentication - Validate consumers and subscribers.
- API encryption - TLS protocol.
- Access control - Restrict access to API.
- Audit logging

Create New API:

- Use NAPIX web interface to register
- Manually create a new backend API with built-in toolkit or import swagger definition for an existing API

Manage API:

Publish, Govern, Secure, Analyze and Monitor the APIs with built-in capabilities at every stage of the API life cycle.

NAPIX SANDBOX platform (Staging area for testing APIs) is currently available at NIC Shastri Park Data Centre, Delhi.

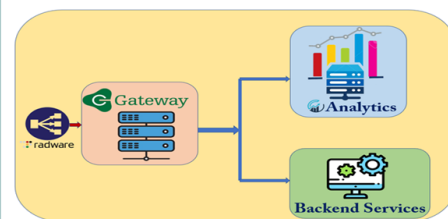
Exclusive Gateway Features

- **Proximity:** Deployed at multiple Data Centers such as NDC Shastri Park, Delhi, NDC Pune, NDC Bhubaneswar, and now also available from NIC Kolkata Data Centre.
- **Flexibility:** API publisher can choose preferred DC and Gateway.
- **Scalability:** Deployed in distributed and horizontally scalable architecture.
- **Threshold:** Current API Transaction threshold is 5,000 TPS (scalable)
- **Security:** Ensure secured access by authentication, authorisation throttling policies.

Benefits to API owners:

- Unified Interface-Test, deploy and manage entire API lifecycle.

Publishing in NAPIX Gateway at NIC Kolkata Mini Data Centre



<https://wb-gateway.napix.gov.in>

NIC Kolkata Data Centre is having 3 nos. of VMs for Gateway (for publishing APIs) and 3 nos. of VMs for Analytics as shown in the above figure.

- Event notification based on API policies.
- Authentication and authorization- Ensure security and level of access.
- Mock and response control
- Analytics monitoring
- Traffic control-Control access to API services
- Performance monitoring - View, analytics, detailed logs and system events
- Dynamic endpoints.

Benefits to API consumers:

- Discovery-Catalogue APIs that facilitates discovery of an APIs.
- Documentation-How to use and extend them further.
- Easy registration for access to APIs and test the desired APIs.
- API updates readily available-Updates and versioning facilities.

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District at a Glance

Purulia

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

Purulia district of West Bengal has an all-India significance because of its tropical location and funnel shape which not only channels the tropical monsoon from the Bay to the subtropical parts of north-west India but also acts as a gateway between the developed industrial belts of the State and the hinterlands in Orissa, Jharkhand, Madhya Pradesh and Uttarpradesh.

Jaina Bhagavati-Sutra of circa 5th century A.D. mentions that Purulia was one of the 16 Mahajanapadas. In 1956, under the States Reorganization Act and the Bihar and West Bengal (Transfer of Territories) Act 1956, the present district of Purulia was born.

Administrative Setup

District Magistrate who is also the District Collector, is the head of the District Administration. At present, Purulia has 4 subdivisions, 20 blocks, 3 municipalities, and 26 police stations.

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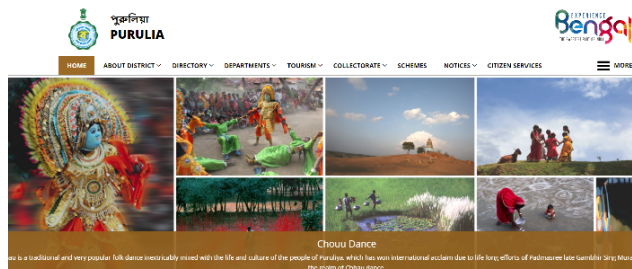
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**ICT Initiatives**

Purulia District Administration, in association with NIC Purulia District Centre, has made significant strides in implementing national, state, and district level ICT initiatives. Following are some well-appreciated ICT initiatives that were conceptualized and implemented in Purulia.

'Vishwakarma', an Employment Information System was created for addressing migrant labourers issue in the district during the COVID-19 outbreak in 2020 and was awarded SKOCH SILVER Award in 2020.

'e-NajarDari', an online platform to regulate the mining and transportation of minor minerals in the district was developed and implemented in 2019 which had received the SKOCH SILVER Award in 2020. Later on, this software was replicated all over the State.

'e-Suchi', a web-based portal for individual monitoring and tracking of severely underweight children in respect of indicators related to biological, anthropometric, social, and home-based care issues of the child is implemented at the Anganwadi Centre level. This project was highly appreciated by UNICEF and the Department of Women and Child Welfare, GoWB.

Apart from the above, 'Vidyasagar' (an e-learning portal), 'Shilpa Samadhan' (an online grievance management and monitoring system), 'Online Recruitment Portal', 'Online Puja Permission Software' etc. are some other unique and well-admired ICT initiatives, that were successfully implemented across the district.

National and State Level Projects

Purulia has implemented several national and state level ICT projects for improving the delivery of government services to citizens. National level projects like e-VAHAN, e-Sarathi, e-Office, e-Prosecution, e-Prison, e-Office, e-Procurement, e-Auction, NDAL ALIS, IVFRT etc. have been successfully implemented in the district and block level offices. Beside these various state level key projects like Kanyashree, Rupashree, OSCAR, e-Pension, Duare Sarkar, Lashmir Bhandar, Jaibangla, e-Bhuchitra, Sabooj Sathi etc., were successfully rolled out in the district.

NIC District Centre

NIC Purulia has provided 100 Gbps NICNET connections to the Purulia Collectorate Office, email services to government employees, maintenance of two VC Studios, extended its support to District Administration during the visits of Hon'ble PM and Hon'ble CM, and also for smooth and hassle-free recruitments and elections by providing IT solutions and consultancy as per requirement. In 2016, NIC Purulia was recognized with the Digital India Award from Shri Ravi Shankar Prasad, Hon'ble Minister of Communication and IT, for outstanding performance in Digital India Week.

Sourav Samaddar, Scientific Officer/Engineer- SB
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I wanted to express my sincere gratitude to NIC for highlighting the ICT initiatives of Purulia in the forthcoming issues of their quarterly newsletter "UTTARAN". As technology continues to play an increasingly important role in our lives, it is vital that we stay informed about the latest developments in e-governance and their impact on our communities.

Government of West Bengal and Purulia District Administration has introduced and implemented various digital services to enhance transparency and accessibility in the delivery of government services. NIC Purulia District Centre has been playing a vital role in the implementation of these e-governance initiatives by providing technical support, developing e-governance applications, providing technical consultancies, building capacity and ensuring high bandwidth network facilities.

From Online Recruitment Application to Online tendering process, NIC has streamlined many bureaucratic processes and eliminated many of the traditional barriers to access government services. With the use of online platforms, citizens can now easily apply for government benefits, track their applications, and receive updates on their status without having to visit government offices in person. On the other side, by leveraging digital technologies, administration has been able to provide a range of services and information to citizens more efficiently and effectively than ever before.

I would like to extend my heartfelt thanks and appreciation to the entire NIC team including NIC Purulia District Centre for their exceptional work and dedication. Their contributions to various e-Governance initiatives have been invaluable, and we look forward to continue our sojourn with them as we strive towards achieving our goals.

Dr. Rajat Nanda, IAS
District Magistrate & District Collector
Purulia District