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Informatics

Volume 34 No. 4, April 2026

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Editorial



Over the past decade, India's digital governance journey has often been described through the language of scale: millions of users, thousands of services, nationwide platforms, and rapidly expanding digital infrastructure. Yet, as this issue of Informatics illustrates, the next phase of governance is no longer defined merely by expansion. It is increasingly being defined by operational maturity.

Across the country, digital systems are steadily moving beyond experimentation and becoming embedded in the everyday functioning of administration. The initiatives featured in this issue reflect this transition with remarkable clarity.

In Delhi, governance platforms are no longer operating as isolated service portals. Systems such as eDistrict, CM Jan Sunwai, IFMS, NeVA, eHospital, and DDIS demonstrate an evolving ecosystem in which departments increasingly function through integrated digital workflows rather than parallel administrative silos.

Similarly, Keralam's extensive digital ecosystem demonstrates how sustained institutional investment in technology can create continuity and resilience in governance. Platforms such as SPARK, IFMS, K-SWIFT, ReLIS, and eOffice Kerala illustrate how digital systems are evolving into foundational public infrastructure supporting finance, agriculture, healthcare, elections, and citizen services.

Equally significant is the changing focus of digital governance itself. The conversation is no longer limited to the digitization of services. Increasingly, it is centred on reliability, interoperability, security, transparency, and institutional trust.

This issue's technology features, including deterministic verification for Android applications and modern SIEM-based cybersecurity operations, reinforce another important reality. Governance systems today must not only scale efficiently, but also remain secure, resilient, and verifiable in increasingly complex digital environments.

At the same time, citizen expectations are evolving rapidly. People now expect governance platforms to be responsive, transparent, mobile-friendly, and accessible across linguistic, geographic, and social boundaries. The success of digital governance will therefore depend not merely on technical sophistication, but on how intuitively, inclusively, and reliably systems serve citizens.

One of the most encouraging trends visible across the initiatives covered in this edition is the growing convergence between technological capability and administrative vision. Meaningful governance transformation occurs when digital systems are designed not in isolation, but with a deep understanding of institutional realities and citizen needs.

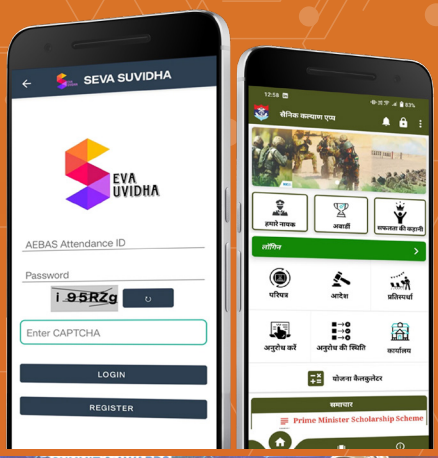
This edition also marks an important moment of transition for the Informatics family. We place on record our deep appreciation for the invaluable contributions of Shri Ajay Singh Chahal, DDG and SIO, Himachal Pradesh, and Dr. Suchitra Pyarelal, DDG and SIO, Keralam, who superannuate in April and May 2026 respectively. Their guidance, commitment, and sustained efforts have played a significant role in strengthening Informatics Quarterly as a vibrant platform for digital governance discourse.

As India advances further into an interconnected digital future, the true measure of progress may no longer lie in the number of applications we build, but in how seamlessly governance itself functions through them.

The story of Digital India is now entering a quieter and more consequential phase, where stability matters as much as innovation, and thoughtful integration matters as much as technological ambition.

-Editor-in-Chief





















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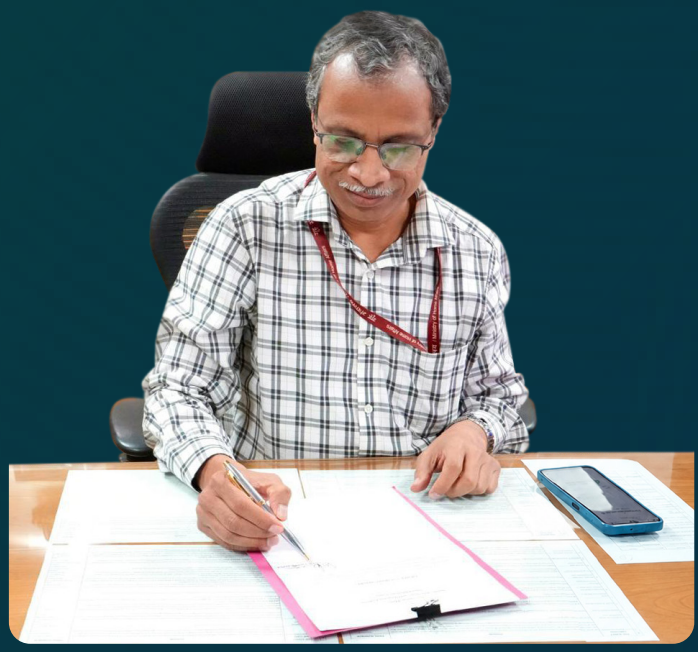
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Shri V.T.V. Ramana takes over as Director General of NIC

Shri V.T.V. Ramana has assumed charge as the 19th Director General of the National Informatics Centre (NIC) on 8 April 2026, bringing with him extensive experience in cybersecurity, digital infrastructure, and e-Governance at a time when secure and resilient digital public infrastructure is becoming increasingly central to governance.





Prior to assuming charge, Shri Ramana served as the Chief Information Security Officer (CISO) at NIC Headquarters, where he led several critical cybersecurity and information security initiatives for the Government of India. In this role, he coordinated major operational and infrastructure divisions including the Command and Control Centre, Network Operations Centre, NKN/DII PMU, Data Centre Audit, Application Security Audit, and NIC Service Desk, contributing significantly to the reliability and security of government digital systems.

As Head of Group (HoG), Shri Ramana also led strategic divisions covering Cyber and Information Security Governance, Analytics, Management, and Systems. He played an important role in guiding national digital platforms and initiatives such as Parichay, JanParichay, and Gov-Drive, which support secure digital identity, authentication, and collaboration services across government institutions.





His leadership extended to key Informatics Divisions of the Department of Telecommunications (DoT) and Department of Posts (DoP), along with initiatives related to secure e-Service Delivery and digital transformation. Through these responsibilities, Shri Ramana contributed substantially towards strengthening cybersecurity frameworks, governance platforms, and secure public digital infrastructure across the nation.

Shri Ramana assumes leadership of NIC during a significant phase in India's digital governance journey, marked by increasing emphasis on cybersecurity, interoperability, trusted digital platforms, and large-scale public digital infrastructure. His extensive experience across information security, national platforms, and technology operations is expected to further strengthen NIC's continuing role in enabling efficient, transparent, and citizen-centric digital governance across the country.

सत्यमेव जयते

V.T.V. Ramana
Director General

Government of India
Ministry of Electronics
& Information Technology
National Informatics Centre

Dear Readers,

The National Informatics Centre has been at the forefront of India's digital governance journey, enabling transformation across Ministries, Departments, States, and Union Territories through innovative and secure technology solutions. Over the years, NIC has earned a position of trust and credibility by creating robust digital infrastructure and delivering citizen-centric platforms that support efficient, transparent, and responsive governance.

As we move ahead, the pace of technological change presents both opportunities and responsibilities. Emerging technologies such as Artificial Intelligence, advanced analytics, automation, and cloud computing are redefining the manner in which governments engage, deliver services, and make informed decisions. At the same time, the growing importance of cybersecurity and data protection calls for constant vigilance and strong institutional preparedness.

NIC is uniquely positioned to lead this next phase of digital transformation. With its vast institutional experience, nationwide presence, dedicated workforce, and deep domain knowledge of government processes, the organisation will continue to play a pivotal role in shaping future-ready governance systems. Our focus shall remain on building secure, scalable, inclusive, and sustainable digital solutions that create tangible value for citizens and institutions alike.

Equally important is the spirit of collaboration. Strong partnerships with Central Ministries, State Governments, public institutions, academia, industry, and other stakeholders will further strengthen innovation and accelerate outcomes. By combining technology with administrative insight, we can create systems that are efficient, accessible, and impactful.

The continued success of NIC rests on the commitment, professionalism, and excellence of its officers and staff across the country. Their dedication remains the foundation of every milestone achieved by the organisation.

I am confident that with collective resolve and a forward-looking vision, NIC will continue to contribute significantly to the mission of Digital India and to the larger objective of nation-building through technology. I extend my best wishes to all our readers and stakeholders for continued success and a rewarding journey ahead.

Warm regards,
V.T.V. Ramana





NCT of Delhi

From Services to Smart Governance

Edited by **MOHAN DAS VISWAM**

Delhi, as the administrative, political, and strategic nucleus of the nation, represents a unique convergence of historical legacy and contemporary urban transformation. The National Capital Territory has, in recent years, emerged as a frontrunner in leveraging ICT to strengthen governance frameworks.

Under the aegis of the Government of NCT of Delhi, NIC Delhi has spearheaded a series of digital initiatives aimed at enhancing service delivery, improving transparency, and streamlining administrative processes. The focus has been on developing integrated, scalable, and citizen-centric platforms that enable seamless access to public services and foster efficient inter-departmental coordination.

Given the scale and diversity of the city, these interventions have been complemented by data-driven decision-making and smart governance solutions across key sectors, including healthcare, education, transport, and public administration.

This article presents an overview of the major ICT initiatives and digital interventions undertaken in Delhi, highlighting their role in advancing a transparent, efficient, and citizen-centric governance ecosystem aligned with the vision of Digital India.

ICT Initiatives in the State

Citizen Platforms

Delhi's digital transformation places citizens at the centre by simplifying access, reducing delays, and improving transparency. Unified platforms deliver certificates, registrations, grievances, and welfare services through a single interface, making governance more responsive and accessible.



Nittal Srinivas
Dy. Director General & SIO
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Delhi's digital transformation reflects a shift towards integrated, citizen-centric governance. Platforms across service delivery, administration, finance, healthcare, and welfare have enhanced transparency, efficiency, and accessibility. Systems like eDistrict, IFMS, eOffice, and DDIS demonstrate strong inter-departmental coordination, while data-driven tools and digital infrastructure ensure scalability and responsiveness. Overall, Delhi has evolved from isolated digitization to a cohesive, technology-enabled governance ecosystem.



eDistrict

The eDistrict Delhi is a flagship platform that enables end-to-end digital delivery of public services, significantly reducing the need for physical visits and streamlining administrative processes. It offers features such as single sign-on access, Aadhaar-based authentication, digitally signed certificates, integrated online payments, and DigiLocker support. The platform also ensures inter-departmental verification, real-time application tracking, automated workflows, and timely service delivery through eSLA. With over 453 services across 41 departments, more than 87 lakh registered users, and over 128 lakh applications processed, eDistrict has emerged as a cornerstone of digital governance in Delhi.

CM Jan Sunwai Portal

The CM Jan Sunwai Portal serves as a unified grievance redressal mechanism, enabling citizens to register complaints, track progress, and provide feedback directly to the government. Accessible via web, mobile applications, and the CM Helpline (1902), the platform ensures transparency through real-time tracking, automated routing to departments, escalation of unresolved cases, and time-bound resolution. Relaunched on 21 February 2026, it further strengthens participatory governance and responsiveness.

RTI Online System

The RTI Online System simplifies access to information by enabling citizens to file applications digitally across more than 200 public authorities. By reducing manual processes and expanding accessibility, it reinforces transparency and accountability in governance.

LG Listening Post

The LG Listening Post functions as a centralized grievance monitoring system for the Lieutenant Governor Secretariat, supported by a mobile application. It enables real-time tracking of complaints and improves responsiveness through better oversight and coordination.

DBT Delhi Portal

The DBT System ensures efficient delivery of welfare benefits by directly transferring funds to beneficiaries, minimizing intermediaries and leakages. Integrated with the DBT Bharat Portal, it enhances targeting, transparency, and overall efficiency in public welfare distribution.

eSLA

The eSLA system operationalizes Delhi Right

of Citizen to Time-Bound Delivery of Services Act, 2011, by monitoring service timelines across departments. Covering 48 departments and 565 services, it strengthens accountability and ensures that citizens receive services within defined timeframes.

Governance & Administration

NIC Delhi has digitized internal government processes to enable efficient administration, better coordination, and data-driven decision-making through streamlined workflows, enhanced transparency, and real-time visibility.

eOffice

The eOffice platform has been instrumental in moving government functioning toward a paperless and efficient system. It enables electronic creation, movement, and tracking of files, along with digital document management and record-keeping. By reducing reliance on physical paperwork, eOffice improves transparency, speeds up decision-making, and fosters seamless coordination across departments, PSUs, and institutions.

SPARROW

SPARROW digitizes the Annual Performance Appraisal Report (APAR) process for government officers, ensuring a transparent, standardized, and timely evaluation system. By maintaining secure, centralized service records and enabling online submission and processing, it enhances consistency and accountability in performance management.

DDIS

The Delhi Development Information System (DDIS) serves as a comprehensive platform for monitoring development works across schemes, enabling end-to-end tracking from proposal to execution. It supports project proposal entry, multi-level approvals, fund release tracking, and progress updates with photographic evidence. With over 8,000 projects onboarded, DDIS has significantly improved transparency, fund utilisation, and oversight of development initiatives through real-time monitoring dashboards for senior officials.

> Delhi's e-governance journey reflects its commitment to responsive and transparent administration. Platforms developed by NIC Delhi like CM Jan Sunwai have strengthened grievance redressal by enabling direct communication between citizens and the government, ensuring timely resolution. Similarly, the e-District portal has simplified access to essential services such as certificates and licenses through a single digital interface. These applications have reduced paperwork, improved efficiency, and ensured time-bound delivery.
>
> The Delhi Development Information System (DDIS) is another NIC Delhi initiative for streamlined monitoring and improved governance of development initiatives across the National Capital Territory enabling end-to-end tracking from proposal to execution and ensuring transparency and efficient fund utilization.
>
> I compliment the NIC Delhi Team for their initiatives and sincere efforts in facilitating the Govt. of NCT of Delhi to expand its digital ecosystem, building a responsive and transparent governance model that truly empowers its citizens.
>
> **Smt. Rekha Gupta**
> Hon'ble Chief Minister, Delhi



DARPAN 2.0

DARPAN 2.0 is a 24×7 real-time monitoring and analytics platform that tracks government schemes and projects while offering insights through trend analysis, peer comparison, and demographic profiling. By enabling data-driven decision-making, it strengthens policy formulation and performance monitoring. Following a successful pilot, it is now approved for rollout across all departments.

eSamiksha

The eSamiksha platform supports continuous monitoring and review of key government programmes, enabling real-time tracking, periodic assessments, and timely interventions. With dedicated dashboards for senior officers, it enhances accountability and ensures that projects are completed within defined timelines.

CM Schedule Management System

The CM Schedule Management System streamlines the planning and management of the Chief Minister's engagements through a digital platform and mobile application. It enables centralized scheduling of meetings and appointments, real-time updates, and improved coordination, ensuring better time utilization and administrative efficiency.

Financial Management & Public Expenditure Systems

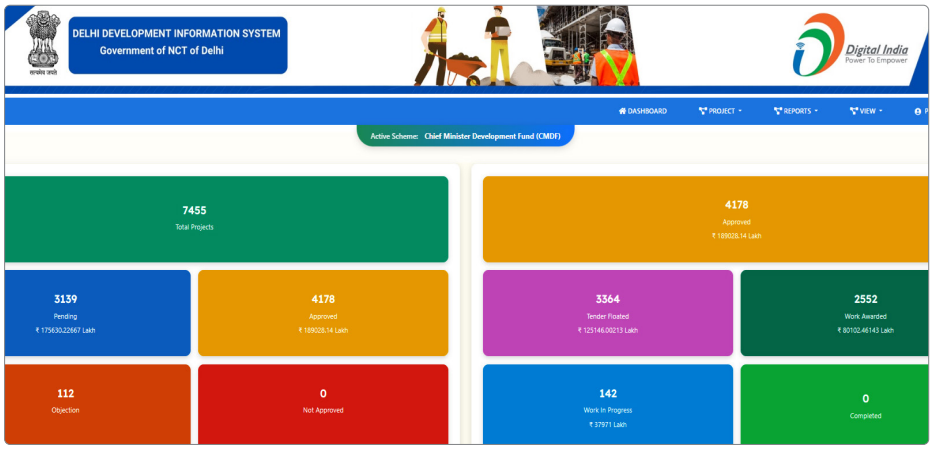
NIC Delhi has strengthened fiscal governance by implementing digital financial systems that ensure transparency, efficiency, and accountability in public expenditure. These platforms enable end-to-end digitization of budgeting, bill processing, payments, and reconciliation, significantly reducing manual intervention and minimizing leakages.

IFMS

The Integrated Financial Management System (IFMS) serves as the backbone of Delhi Government's financial operations, streamlining salary disbursement and enabling real-time monitoring of budgets, expenditure, and fund flows. It has been adopted across more than 1,700 Drawing and Disbursing Officers (DDOs) and 25 Pay and Accounts Offices (PAOs).

IFMS integrates multiple components, including the Centralised Billing System for bill generation, the GPF Monitoring System for managing provident fund accounts, De-Lekha for expenditure consolidation, the Government e-Payment Gateway for secure transactions, and the Delhi

▼ Fig 2.1 : DDIS Portal Homepage



> Delhi's progress in digital governance reflects a clear vision of building a responsive, transparent, and citizen-first administration. Initiatives such as e-District platform, eSLA, e-Abgari, eHospital, EWS Admissions have transformed the way public services are delivered, making them more accessible, efficient, and accountable. These applications have empowered citizens by reducing procedural delays and ensuring time-bound service delivery.
>
> The contribution of NIC has been critical in creating a robust, secure, scalable, and integrated digital ecosystem. Their technical expertise has enabled seamless implementation of various e-governance initiatives across departments.
>
> Going forward, the Government of Delhi remains committed to deepening digital integration, enhancing user experience, and adopting emerging technologies such as artificial intelligence and data analytics. Our priority is to ensure that every citizen benefits from these advancements, making governance more inclusive, efficient, and future-ready.

Shri Rajeev Verma, IAS
Chief Secretary, Govt. of NCT-Delhi



SGST Reconciliation System for tax reconciliation. The IFMS Delhi Mobile App further enhances accessibility by allowing employees to conveniently view salary slips and GPF details.

SNA-SPARSH

The SNA-SPARSH system is an integrated platform for managing fund flows under Centrally Sponsored Schemes. Through its integration with PFMS, RBI e-Kuber, and NPCI, it enables a "just-in-time" fund release mechanism and supports both DBT and non-DBT payments. This improves cash management and ensures real-time tracking of fund disbursement across central and state levels.

ePayment

The ePayment system enables digital collection of government receipts through integration with banking platforms such as the State Bank of India's e-Pay portal. By facilitating online payment of government dues across departments, it enhances transparency, improves efficiency, and offers greater convenience to citizens and businesses.

eProcurement

The eProcurement system digitizes the entire procurement lifecycle, from tender publication to bid submission, evaluation, and contract management. By ensuring transparency, reducing manual processes, and enabling end-to-end tracking, it strengthens fairness and efficiency in public procurement.

eBhavishya

The eBhavishya system streamlines pension sanction and disbursement through a fully digital workflow. It enables end-to-end tracking of pension cases, online submission of forms, and real-time status updates through SMS and email notifications. By reducing delays and manual intervention, the system ensures timely, transparent, and efficient delivery of pension benefits across the Government of NCT of Delhi.

Delhi SGST Reconciliation System

The Delhi SGST Reconciliation System facilitates accurate reconciliation of State GST data by integrating with national financial systems such as GSTN and RBI e-Kuber. By automating reconciliation processes, it enhances accuracy in revenue accounting and strengthens fiscal transparency and compliance.

Justice & Legal Ecosystem

NIC Delhi has strengthened the justice delivery framework by introducing digital platforms that enhance coordination, transparency, and efficiency across legal and judicial systems. Through seamless information sharing, digitized workflows, and real-time case monitoring, these initiatives are transforming how justice is administered and accessed.

ICJS

The Interoperable Criminal Justice System (ICJS) enables real-time integration among key pillars of the criminal justice system, including police, courts, prisons, prosecution, and forensic departments. By facilitating seamless exchange of case-related information, it improves coordination among stakeholders, accelerates investigations and case processing, and enhances transparency in justice delivery.

eLitigation

The eLitigation system provides a centralized digital platform for managing government-related court cases. It supports electronic filing, tracking, and monitoring of cases, reducing manual processes while improving efficiency and oversight in handling litigation involving government departments.

MedLeaPR

The MedLeaPR system streamlines medico-legal and post-mortem reporting through digital documentation, standardized templates, secure storage, and integration with CCTNS, ensuring timely access for legal processes. The eLitigation platform enables centralized filing, tracking, and monitoring of government cases, reducing manual processes.

RCMS

The Revenue Court Case Monitoring System (RCMS) digitizes revenue court proceedings across multiple levels, including SDM, ADM, DM, and Financial Commissioner courts. It enables citizens to file petitions online, upload documents, track case progress and hearings, and manage appeals, thereby making revenue justice processes more accessible and transparent.

OSWS

Online Single Window System (OSWS) for counsels provides a fully digital mechanism for submission and processing of fee claims, ensuring timely and transparent payments while integrating seamlessly with departmental workflows.

Court System

Across the judiciary, several Court Systems have been implemented to streamline operations in the Delhi High Court and District Courts. These include the Case Information System (CIS) for case management, the National Judicial Data Grid (NJDG) for transparency, and services such as e-Filing, e-Court Fee, and e-Inspection. Additional features like e-Cause Lists, automated allocation of bail applications, and video conferencing for virtual hearings have significantly improved accessibility, efficiency, and responsiveness in court functioning.

The Labour Court Case Monitoring System enables end-to-end digital management of labour-related cases. It supports online case filing, hearing management, case transfers and reopening, and public access to case details, along with automated notices and cause lists. By digitizing labour dispute resolution, it enhances efficiency, transparency, and accessibility in labour justice systems.

Healthcare Systems

NIC Delhi has significantly advanced the digitization of healthcare services, focusing on improved patient care, efficient resource management, and real-time decision-making. These platforms enable better coordination across hospitals and health departments while enhancing transparency and responsiveness in service delivery.

NextGen eHospital

The NextGen eHospital system is an integrated Hospital Management Information System (HMIS) designed to streamline healthcare services and hospital administration. It enables efficient patient management and provides real-time data for informed decision-making. Currently being implemented across 38 government hospitals in Delhi, it forms the backbone of the city's digital healthcare ecosystem.

PCPNDT Online Form-F Portal

The PCPNDT Online Form-F Portal ensures compliance with the PCPNDT Act by enabling digital reporting and monitoring of diagnostic centres, including private ultrasound facilities. With over 95 lakh Form-F submissions and more than 2,400 centres registered, the platform has strengthened transparency, compliance, and regulatory oversight.

Health Data Management Portal

The Health Data Management Portal serves as a centralized platform for real-time monitoring of health data across Delhi. It supports hospital logistics, bed availability (including ICU beds), disease surveillance, drug supply management, and oxygen tracking, enabling data-driven governance and efficient healthcare administration.

Hospital Bed Information Mobile App

A Hospital Bed Information Mobile App, integrated with the NextGen eHospital system, is being developed to provide citizens with real-time information on ICU bed availability, ensuring timely access to critical care services.

Drug Monitoring System

The Drug Monitoring System is a web-based platform that tracks regulated drugs, ensuring controlled distribution and preventing misuse. By enabling stock tracking, sales recording, and reporting for chemists and administrators, it enhances transparency in the pharmaceutical supply chain.

Nursing Home Management System

The Nursing Home Management System digitizes the registration and renewal of nursing homes through a fully online, paperless process. It captures detailed information on facilities, staff, and services, supports inspections and compliance workflows, and enables digital issuance of certificates. With integrated payment, notifications, and reporting features, it improves efficiency, transparency, and regulatory oversight.

Food Samples Testing Management System

The Food Samples Testing Management System facilitates digital tracking of food sample collection, testing, and reporting across Delhi. By ensuring time-bound processing and enabling real-time monitoring by authorities, it strengthens food safety enforcement, compliance, and accountability.

Social Welfare Systems

NIC Delhi has leveraged digital technologies to strengthen welfare delivery by improving transparency, inclusivity, and efficiency. These platforms streamline beneficiary management, enhance compliance, and expand access to welfare and labour services across the city.

ePDS

The ePDS (Electronic Public Distribution System) is an end-to-end digital platform for managing food grain distribution under the National Food Security Act. Integrated with SMART-PDS and supported by ePOS devices, it enables real-time monitoring, last-mile authentication, and portability under One Nation One Ration Card. Serving over 72 lakh beneficiaries and 17 lakh ration cards, it has significantly improved transparency and efficiency in food distribution.

Delhi Labour Welfare Board Portal

The Delhi Labour Welfare Board Portal digitizes the administration of welfare schemes and the Labour Welfare Fund. It enables employer registration, online contribution payments, employee data management, and access to updates, thereby enhancing accessibility and transparency in labour welfare services.

Shop & Establishment Exemption System

The Shop & Establishment Exemption System simplifies regulatory compliance by enabling online submission and processing of exemption requests under the Delhi Shops and Establishments Act. By offering a transparent and time-bound approval process, it reduces manual intervention and improves ease of doing business.

Outsource Wages Payment Management System

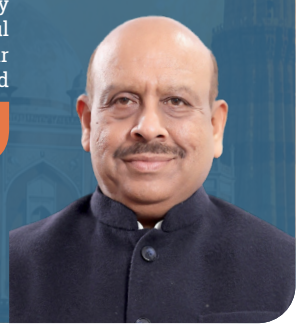
The Outsource Wages Payment Management System ensures timely and transparent wage disbursement to outsourced personnel through centralized tracking and integration with departmental workflows. By reducing delays and discrepancies, it strengthens accountability and promotes fair compensation in contract-based employment.

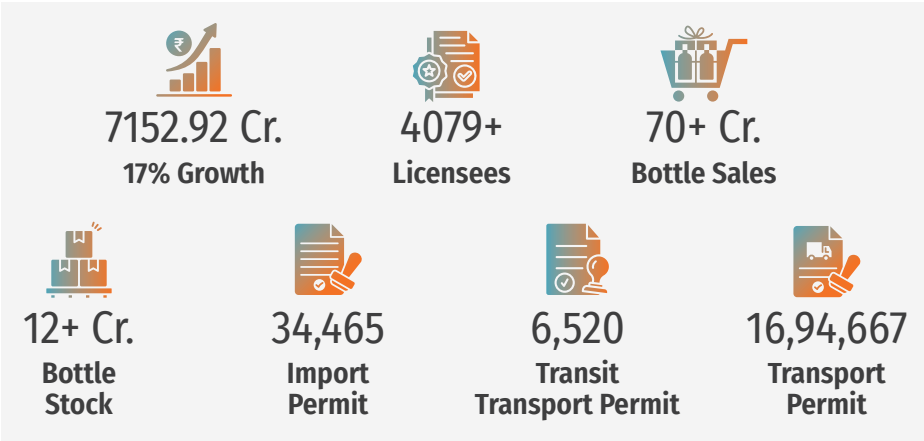
Education and Recruitment Systems

Delhi has adopted digital platforms to streamline admissions and recruitment, ensuring transparency, efficiency, and wider access while enabling fair, merit-based selection with minimal manual intervention.

> The authority of a legislative institution rests not only in the continuity of its constitutional traditions, but equally in its ability to adapt, with care and judgement, to the changing requirements of governance. It is in this spirit that the Delhi Legislative Assembly undertook the full implementation of NeVA (National eVidhan Application) during the Monsoon Session of the First Part of the Eighth Legislative Assembly Session, marking a considered step towards modernizing its working processes.
>
> The transition to NeVA has enabled the Assembly to move towards a more cohesive and efficient system of operation, where legislative business is supported by timely and structured digital access. Notices, questions, papers to be laid on the Table, and proceedings of the House are now available through a unified digital platform, allowing Members to approach legislative work with greater readiness and continuity. The shift has brought a quiet yet definite improvement in the manner in which business is prepared, conducted and recorded, while also ensuring that institutional records are maintained in a form that is both reliable and readily accessible.
>
> The National Informatics Centre has played a steady and enabling role in this process. Its technical support, combined with an understanding of the procedural character of legislative work, has ensured that the adoption of NeVA has been smooth and responsive to the Assembly's practical requirements. The effort reflects a careful alignment of technology with established practices, without disturbing the discipline and order that are essential to the functioning of the House.
>
> At a broader level, the move carries significance beyond administrative convenience. A digital legislative framework strengthens transparency, improves access to information, and supports more informed participation within the House. It also serves to reinforce public confidence by ensuring that governance processes remain open, clear and accountable.
>
> The collaboration between the Delhi Legislative Assembly and the National Informatics Centre stands as a thoughtful example of how institutions can evolve without losing their grounding. I place on record my appreciation for NIC's continued commitment and look forward to further strengthening this association in the service of efficient, transparent and responsive legislative governance.

Shri Vijender Gupta
Member of Delhi Legislative Assembly





▲ Fig 2.2 A Statistical Overview of eAbkari System

eCounseling

The eCounseling system serves as a centralized platform for online admissions across major institutions under the Government of NCT of Delhi, including GGSIPU, NSUT, DTU, IGDTUW, IIIT, SCERT, and ITIs. It enables online registration, choice filling, and automated seat allocation, ensuring a transparent, efficient, and student-friendly admission process with reduced physical interface.

EWS Education Portal

The EWS Education Portal facilitates online applications for admissions under EWS, DG, CWSN, and Freeship categories. By simplifying the application process and ensuring transparent seat allocation, it promotes inclusivity and expands access to education for economically weaker and disadvantaged sections.

DSSSB OARS

The DSSSB OARS platform supports end-to-end digital management of recruitment processes for the Delhi Subordinate Services Selection Board. It enables online registration, application submission, fee payment, and applicant communication, ensuring efficient handling of large-scale recruitments while enhancing transparency and reducing manual intervention.

Business, Regulation and Ease of Doing Business

NIC Delhi has strengthened the business ecosystem by digitizing regulatory processes, simplifying licensing, approvals, inspections, and compliance. These platforms reduce delays, minimize physical interface, and enhance transparency, creating a more efficient and business-friendly environment.

eAbkari

The eAbkari system is a comprehensive digital platform for managing excise operations, enabling end-to-end processing of licenses, permits, and liquor movement. It supports license issuance and renewal, permit generation, inventory tracking, label registration, and duty management, while also strengthening enforcement through inspection monitoring and barcode-based tracking. Integrated dashboards provide real-time insights for decision-making. The Delhi eAbkari mobile app further enhances accessibility by allowing users to locate vends, verify product authenticity, check dry days, and register grievances.

▼ Fig 2.3 : eFilm Clearance Portal



Delhi Single Window System for Industry

The Delhi Single Window System for Industry provides businesses with a unified interface to obtain approvals and clearances from multiple departments. By enabling online applications, real-time tracking, integrated workflows, and time-bound service delivery, it reduces paperwork, improves coordination, and significantly enhances ease of doing business.

D-CIS

The Delhi Central Inspection System (D-CIS) streamlines inspection processes across departments by eliminating duplication and ensuring standardized procedures. It improves coordination among authorities, reduces compliance burden on businesses, and creates a transparent and predictable inspection framework.

eFilm Clearance System

The eFilm Clearance System offers a single-window platform for obtaining filming permissions across Delhi. By integrating multiple departments into a unified workflow, it enables online applications, faster approvals, and reduced paperwork, promoting Delhi as a film-friendly destination while ensuring efficient regulatory compliance.

Other Major Initiatives

Beyond core governance systems, NIC Delhi has expanded digital transformation across legislative processes, property registration, land management, and consumer protection, enhancing transparency, efficiency, and citizen convenience.

Delhi NeVA Project

The Delhi NeVA (National e-Vidhan Application) Project, launched on 3rd August 2025 at the Delhi Legislative Assembly, enables a fully digital and paperless legislative workflow under the Digital India Programme. It supports real-time management of questions, notices, bills, and proceedings, along with automated workflows and digital archiving. Implemented within an accelerated 100-day timeline, the platform enhances transparency, accessibility, and data-driven decision-making for legislators and officials. With dedicated NeVA Sewa Kendras and operational support, Delhi has become the 20th Legislative Assembly to adopt this system, advancing the vision of “One Nation, One Application.”

NGDRS

The NGDRS (National Generic Document Registration System) digitizes the property registration process by enabling online document registration, appointment booking, e-stamping integration, automated fee calculation, and real-time status tracking. By reducing physical visits and standardizing procedures, it improves transparency and ease of property transactions.



▲ Fig 2.4 : Hon'ble Chief Minister of Delhi, Smt. Rekha Gupta, launching the 'CM Jan Sunwai Portal' along with Hon'ble Minister of IT, Dr. Pankaj Kumar Singh, Hon'ble Minister of Education, Shri Ashish Sood, and other officials

Vehicle Location Tracking and Emergency Alert System (VLT & EAS)

VLT & EAS enhances vehicle safety through real-time GPS tracking and monitoring. It enables authorities to track movement and ensure compliance. The emergency alert feature allows instant distress signals to control centers, ensuring quick response, improved passenger safety, and efficient incident management.

Land Records System

Land Record System digitizes land ownership, records, and transactions, ensuring transparency and easy access. It reduces disputes, improves accuracy, enables online verification, and streamlines land administration processes for citizens and authorities.

MaapTol Portal

The MaapTol Portal supports the Weights & Measures Department by enabling online verification and certification of measuring instruments, along with grievance registration and tracking. Supported by mobile applications and real-time field inspection capabilities, it enhances consumer protection, regulatory efficiency, and transparency in enforcement.

Network and Infrastructure Services

A robust digital infrastructure underpins Delhi's e-Governance ecosystem, enabling secure connectivity, seamless communication, and reliable service delivery across departments. It supports both citizen-facing services and internal operations, ensuring scalability, efficiency, and continuity of governance.

The Delhi State Wide Area Network (DSWAN) forms the backbone of this ecosystem, providing high-speed, secure connectivity across more than 185 government locations through over 240 dedicated leased lines. It supports a wide range of services, including LAN management, internet and email services, cloud access, VPN connectivity, web hosting, and Wi-Fi, enabling real-time communication and seamless inter-departmental coordination.

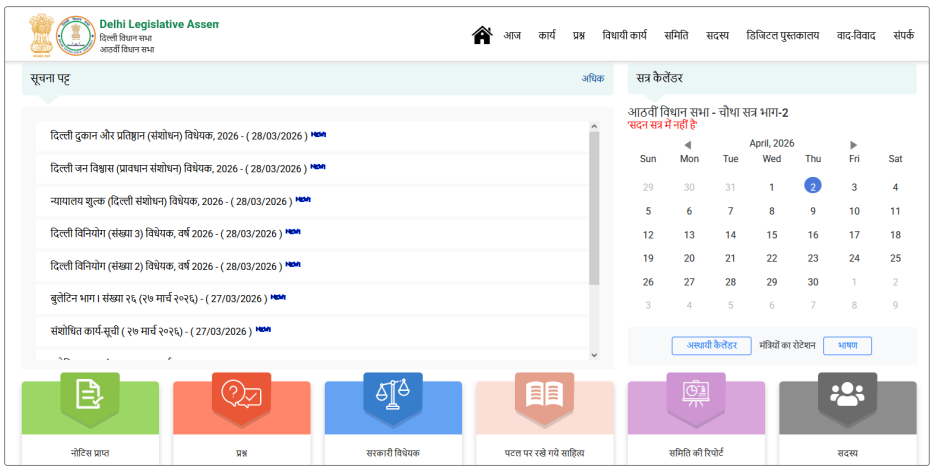
NGC Cloud Services offer a secure and scalable environment for hosting applications and data, allowing departments to deploy services quickly while optimizing infrastructure through centralized resource management.

The Biometric Attendance System (BAS) enhances transparency and accountability by enabling real-time monitoring of employee attendance, improving administrative efficiency.

Video Conferencing (VC) Services enable virtual meetings across state and district levels, supporting faster decision-making, reducing the need for travel, and ensuring continuity in governance.

Together, these initiatives create a resilient digital backbone that powers efficient, secure, and scalable e-Governance in Delhi.

▼ Fig 2.5 : NeVA Delhi Assembly Portal



Important Events Organized

- Inauguration of CM Jan Sunwai portal, eDistrict Services through CSC Digital Seva Kendra, EWS Admission portal by Hon'ble Chief Minister, Delhi along with Minister of IT and Minister of Education.
- Inauguration of MedLeaPR by Hon'ble CM of Delhi
- Inauguration of the Delhi NeVA Project by Speaker of Delhi Legislative Assembly

Way Forward

Going forward, the focus would be on deeper integration, interoperability, and data-driven governance. Leveraging AI and analytics can enable proactive service delivery. Strengthening cybersecurity, capacity building, and mobile-first inclusive access will be key. Enhanced citizen participation and unified platforms can further improve transparency and efficiency, driving Delhi towards a more intelligent and resilient governance ecosystem.

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Keralam State

Transforming Governance and Citizen Services Through Technology

Edited by **VINOD KUMAR GARG**

For more than three decades, National Informatics Centre Keralam has remained at the forefront of digital governance, playing a transformative role in strengthening the technological backbone of the Government of Keralam. Through a wide range of citizen-centric e-Governance initiatives, secure digital infrastructure and innovative ICT solutions, NIC Keralam has consistently enabled transparent, efficient and responsive governance across the state.

From modernising agriculture services and streamlining public distribution systems to enabling digital land governance, financial management, healthcare platforms and election management solutions, NIC Keralam has emerged as a key technology partner in Keralam's digital journey. The Centre has successfully implemented several mission-critical platforms that simplify governance processes, enhance service delivery and improve accessibility for citizens.

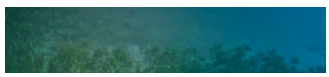
The state centre's contribution extends beyond application development. By providing robust network connectivity, cloud services, video conferencing infrastructure, cybersecurity support and digital communication platforms, NIC Keralam has built a resilient digital ecosystem that supports seamless coordination among government departments and institutions. Initiatives such as eOffice Keralam, ReLIS, K-SWIFT, IFMS, SPARK and Sandes reflect the Centre's commitment towards innovation-driven governance and digital empowerment.



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NIC Keralam has implemented 60+ ICT initiatives across sectors including agriculture, finance, healthcare, education, elections, land administration and public administration to strengthen digital governance in the state. Platforms such as eOffice Keralam, IFMS, SPARK, ReLIS, K-SWIFT and eDistrict have streamlined government processes, improved transparency and enhanced citizen service delivery. Supported by digital infrastructure including NICNET, NKN, cloud services and Aadhaar-enabled systems, NIC Keralam continues to drive technology-enabled governance in Keralam.



As Keralam continues to strengthen its position as a digitally progressive state, NIC Keralam is focusing on emerging technologies such as Artificial Intelligence, Data Analytics, Cloud Computing and secure digital platforms to further improve governance outcomes. With an emphasis on transparency, inclusivity and future-ready digital infrastructure, NIC Keralam continues to contribute significantly towards building a smart, connected and citizen-friendly governance framework for the state.

ICT Initiatives in the State

Agriculture Development & Farmers Welfare

Agriculture Information Management System (AIMS)

AIMS provides a single-window platform for farmers to register, declare land and crops and apply for services offered by the Agriculture Department. Farmers can apply for crop insurance, crop loss assistance, royalty support for cultivable paddy land and other schemes. Applications are processed digitally at Krishi Bhawan, block, district and directorate levels. The system is integrated with a centralized DBT module and state treasury for direct transfer of benefits.

Automation System for Agro Services and Hiring Centre Activities (ASHA)

ASHA is an online workflow and accounting system for centres providing agro services such as farm machinery hiring and agricultural technician support. Farmers can view service centres, machinery availability, hiring charges and book services online. The system also enables users to track bookings, access bills and manage customer accounts digitally.

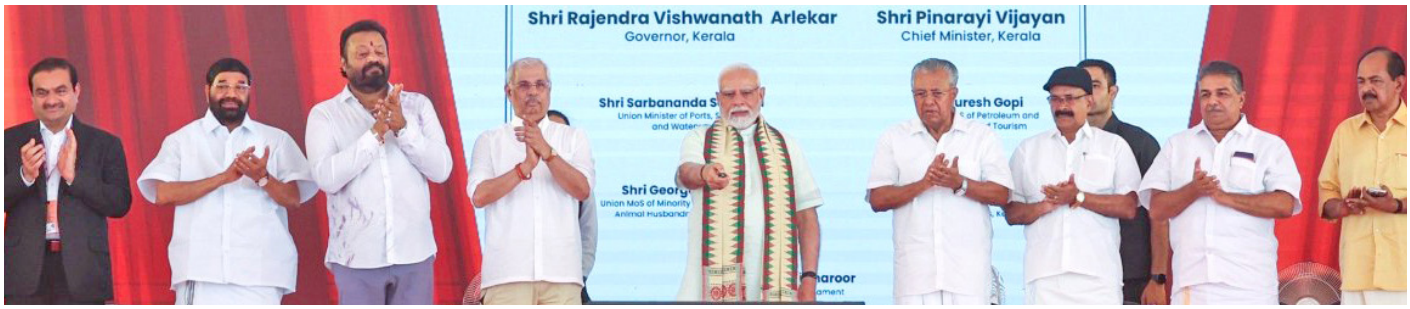
Farm Mechanisation System (FMS)

FMS is a workflow-based application for managing subsidies related to the purchase of agricultural machinery. The platform supports online application processing, verification and subsidy approval. Subsidies are transferred electronically to eligible beneficiaries through e-payment systems.

Dairy Development Department

Ksheerasree

Ksheerasree is a web-enabled platform providing digital services for Dairy Cooperative Societies, dairy farmers and the Dairy Development Department. The system supports farmer registration, online application submission, beneficiary selection, workflow-based approvals and subsidy



▲ Fig 3.1 : Hon'ble PM Visit to Keralam ICT support given by NIC Keralam

disbursement. The portal is integrated with milk analysers, weighing machines and display devices for transparent milk quality assessment.

Civil Supplies Department

Public Distribution System

The Public Distribution System platform provides digital services related to ration card management through CSCs and citizen portals. It supports categorisation of ration cards under NFSA provisions and digitised beneficiary identification using inclusion and exclusion criteria.

Direct Selling Business Portal

The Direct Selling Business Portal was launched for registration and monitoring of Direct Selling Entities in Keralam following the Consumer Protection (Direct Selling) Rules, 2021. The bilingual portal supports workflow-based management and regulatory monitoring of direct selling businesses in the state.

Ente Ration Card Mobile App

The "Ente Ration Card" mobile application allows citizens to access ration card details, application status and related e-services on mobile devices. The app also supports the use of digital ration card data for purchasing ration.

e-Card System

The e-Card system enables citizens to apply online for new ration cards or modifications in existing cards without visiting offices. Approved bilingual e-cards can be downloaded and used across the country under the Integrated Management of Public Distribution System (IMPDS).

Legal Metrology Operations and Management System (LMOMS)

LMOMS enables online application and renewal of manufacturer, dealer and repairer licences along with registration services for packers and importers. The portal also supports verification services for weights and measures.

▼ Fig 3.2 : Launch of Direct Selling Business Portal developed by NIC Keralam



State Food Commission Keralam Portal

The portal supports dissemination of information related to the National Food Security Act, 2013 and facilitates awareness and grievance redressal activities of the State Food Commission.

▼ Fig 3.3 : Inauguration of Ksheerasree Portal developed by NIC Keralam



Civil Supplies Public Grievances Portal

The grievance portal allows citizens to register complaints related to the Public Distribution System. Complaints can be submitted with supporting evidence including audio and video files. The system supports complaint routing, monitoring and feedback mechanisms for grievance resolution.

Education Department

iExaMS-HSE and iExaMS-VHSE

iExaMS is an open-source web-based application for managing Higher Secondary, Vocational Higher Secondary and Higher Secondary Equivalency examinations. The platform supports activities from candidate registration to result processing and publication.

hsCAP

hsCAP is the centralized online admission system for Plus One courses in Keralam Higher Secondary schools. Students can apply online and select multiple school-course options through a single application process.

Scholarship Portal

The Scholarship Portal provides online access to scholarship and merit award schemes under various departments including DCE, DMW and HEC. Students can apply digitally based on eligibility criteria defined for each scheme.

Keralam Differential Aptitude Test (K-DAT)

K-DAT is an online aptitude assessment system conducted by the Higher Secondary Department for students completing Class 10. The platform generates analytical reports and charts to support counselling and academic guidance.

State Board of Technical Examinations (SBTE) Portal

The SBTE portal supports online management of academic and examination-related activities for polytechnic and diploma students in Keralam, covering admission, examinations and result management.

Election Department

State Election Commission Portal

The portal supports electoral roll management, polling activities, counting operations and publi-

> The Integrated Finance Management System (IFMS) Keralam plays a pivotal role in the efficient management and execution of financial transactions fostering transparency, accountability and good governance across the State. By enabling comprehensive and collaborative digitization across departments and integrating diverse stakeholders, the system ensures seamless data validation, facilitates data-driven decision- making and strengthens accountability in public finance management.
>
> I commend all departments involved in this transformative initiative with special recognition to the Finance and Treasury Departments for their exemplary leadership and to National Informatics Centre, Keralam for their vital contribution in providing the technological backbone and continuous support.
>
> I extend my best wishes for continued collaboration and sustained progress as we strive to achieve even greater milestones in the digital transformation of public financial systems.

Dr. A. Jayathilak, IAS
Chief Secretary



cation of election statistics and results for local body elections in Keralam.

Officials Randomly Deployed for Election Keralam (ORDER)

ORDER is a web-based solution developed for random deployment of polling officials during elections. The system performs three-level randomisation and assigns officials to polling stations digitally.

TREND

TREND is used for collection and dissemination of election-related data including voter turnout and counting statistics. The platform collects table-wise counting data and publishes polling percentages and results.

Poll Manager

Poll Manager includes mobile applications, portals and dashboards developed for management of polling activities during elections. The platform supports coordination between Chief Electoral Officers, District Electoral Officers and field officials.

Electronics & Information Technology

eOffice Keralam

eOffice Keralam has been implemented across Secretariat departments, district collectorates, taluk offices, village offices, universities and public sector institutions. The platform digitises file movement and office processes. Supporting applications include eTapal, RTI Portal, Court Case Information System and Employee Grievance Management Portal.

eApplication

eApplication enables citizens to submit applications and petitions to the Government online either directly or through Akshaya centres.

eOffice Citizen Portal

The portal provides citizens access to eOffice statistics along with facilities for file search, government order search and receipt tracking.

eDistrict Keralam

eDistrict Keralam is a Mission Mode Project under NeGP for delivering government services digitally through Common Service Centres, public portals and departmental offices. The platform supports efficient and transparent service delivery at local levels.

eProcurement Keralam

The eProcurement portal provides a single platform for government tendering activities across Keralam using the GePNIC system. It supports online tender publication, bid submission, payment processing and bid opening.

Ente Jilla

Ente Jilla is a mobile application developed to provide district-level information for all districts in Keralam. Users can access and switch between district-specific information through a single application.

Finance Department

Integrated Financial Management System (IFMS)

IFMS is an integrated financial management platform connecting Finance Department, Treasury Department, RBI, Accountant General and other stakeholders. The system supports end-to-end treasury modernisation and integration with applications including SPARK, PFMS, e-Kuber and PlanSpace.

Service and Payroll Administrative Repository for Keralam (SPARK)

SPARK is an integrated HR, payroll and establishment management system for government employees across departments, schools, judiciary and universities. The system manages personnel records, payroll processing and administrative services through a centralized platform.

Budget Web Portal

The Budget Web Portal supports preparation and management of the Keralam Government budget, including budget estimation, publication and post-budget activities such as supplementary allocations and fund regularisation.

e-Anumathi

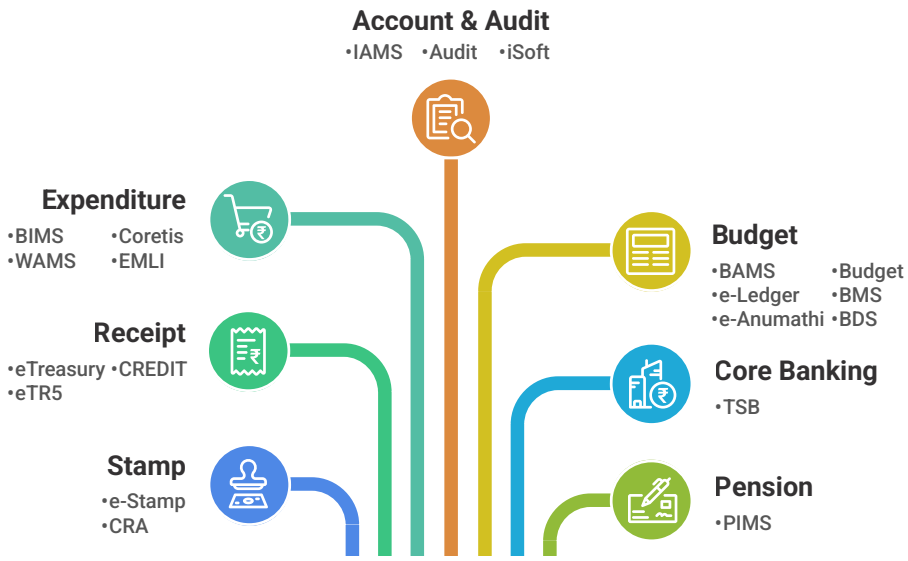
e-Anumathi is a workflow-based single-window platform for generating digitally signed administrative sanctions with unique sanction numbers and expenditure tracking facilities.

Bill Discounting System (BDS)

BDS enables contractors to receive discounted payments against approved bills through participating banks. The platform supports issuance of promissory notes and digital processing of bill payments.

Effective Monitoring of Letter of Credit Issuance (EMLI)

EMLI is a web-based system developed for au-



▲ Fig 3.4 IFMS Workflow



▲ Fig 3.5 : Two-Day National workshop on IT solutions for Ayush Sector

tomating issuance of Letters of Credit based on bills submitted by government departments. The platform supports online bill processing, fund allocation and issuance of government orders.

GAINPF-IFMS

GAINPF-IFMS is a web-based Provident Fund monitoring system for aided institutions in Keralam. The system manages PF accounts, advances and workflow-based processing for institutions under multiple departments.

Legislative Assembly Constituency – Asset Development Scheme Portal

The portal supports sanctioning and monitoring of constituency asset development works proposed by MLAs. It provides workflow-based approval and financial concurrence mechanisms across government departments.

Gazetted Entitlement Management System (GEMS)

GEMS manages pay fixation, leave and pension-related activities for gazetted officers in Keralam. The system supports processing of promotions, grade fixation and other entitlement-related functions.

Pensioner Web Management System

The Pensioner Web Management System supports processing and management of pension entitlements for gazetted officers by the offices of the Accountant General in Keralam.

Accountant General GPF Web Portal

The GPF portal manages provident fund accounts of state government employees, including account creation, advances, withdrawals and account closure activities through a web-based system.

Fisheries Department

ReALCraft

ReALCraft is a national database system developed for registration and monitoring of fishing vessels to strengthen coastal security. The platform assigns unique registration numbers to fishing vessels and supports monitoring by coastal security agencies. It also facilitates subsidy and insurance support for fishermen.

Fisheries Information Management System (FIMS)

FIMS is a workflow-based platform for maintaining online fisherfolk family registers and managing welfare schemes and services. The system stores Aadhaar details, bank accounts, occupation records, education status and vessel ownership information for scheme processing and DBT-enabled benefit transfer.

System for Easy and Legal Issuance of Fuel Permits and Fuel (SELF)

SELF is an integrated workflow-based system linked with ReALCraft, FIMS and SAGARA for managing fuel card distribution and fuel permit issuance to registered fishing vessel owners. The platform provides end-to-end digital services related to fuel distribution for fishermen.

General Administration Department

Court Case Information System (CCIS)

CCIS facilitates digital processing and management of court cases involving government departments. The system enables exchange of documents and communication between departments and the office of the Advocate General.

Guest House Management System

The Guest House Management System enables online booking of government guest houses and conference halls through a public portal. The platform supports digital application processing, booking approvals and SMS-based status updates.

Jeevan Rekha

Jeevan Rekha is a biometric authentication platform developed for pensioners receiving social security and welfare board pensions in Keralam. Pensioners can complete annual life certificate verification through Aadhaar-based biometric authentication at Akshaya centres.

Sarkar Diary

Sarkar Diary is a mobile application providing contact information of senior officials and government offices in Keralam. The application integrates with the government directory management system for annual updates and digital access to official contact records.

Health Department

Lab Diagnosis Management System (Labsys Portal)

Labsys is a web-based portal for monitoring diagnostic tests conducted by government and empanelled private laboratories. The platform tracks testing data, hospitalization details and disease trends to support public health monitoring and response.

Keralam Clinical Establishment Act Portal

The portal supports registration and regulation of clinical establishments under the Keralam Clinical Establishments Act, 2018. It covers institutions from modern medicine, Ayurveda, Homoeopathy, Siddha, Unani and other recognised systems of medicine.

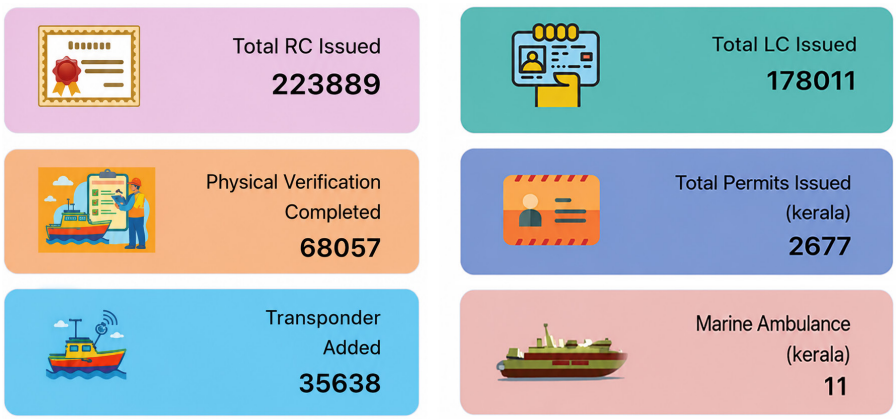
Keralam State Organ and Tissue Transplant Organization (K-SOTTO)

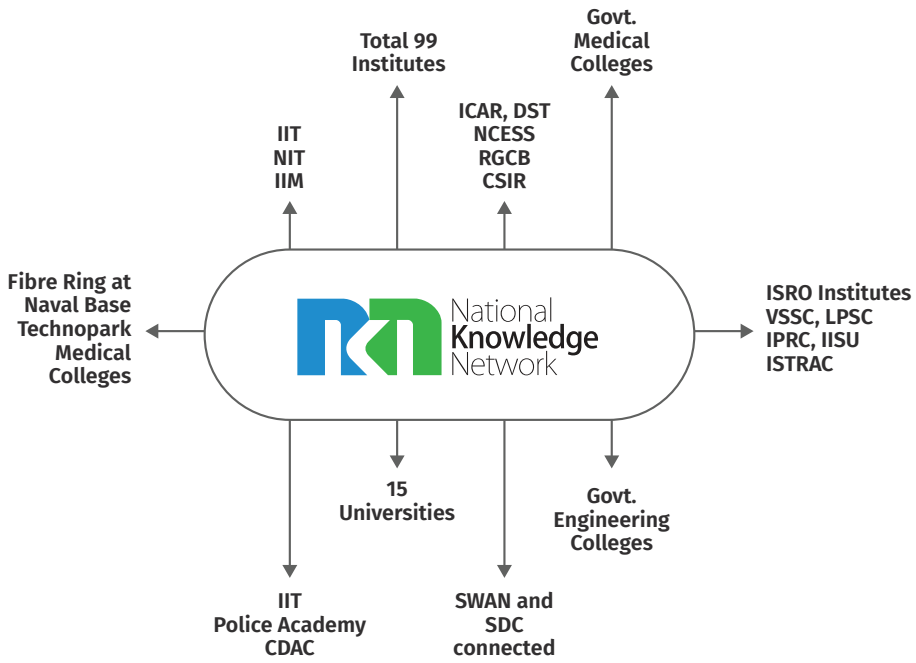
K-SOTTO manages registration of donors and recipients, organ allocation and licensing of transplant and organ retrieval centres in Keralam. The platform supports implementation of organ transplantation regulations and monitoring activities.

eHospital Keralam

eHospital@NIC is an open-source Hospital

▼ Fig 3.6 : ReALCraft Dashboard





▲ Fig 3.7 **IFMS NKN Connectivity**

Management Information System implemented in hospitals under the Directorate of Indian Systems of Medicine in Keralam. The platform supports hospital administration and healthcare service management.

Industries Department

Keralam Single Window Interface for Fast & Transparent Clearance (K-SWIFT)

K-SWIFT is a single-window platform developed for providing statutory clearances and approvals for businesses and investors. The system integrates multiple departments through open APIs and supports online processing of permits and approvals throughout the project lifecycle.

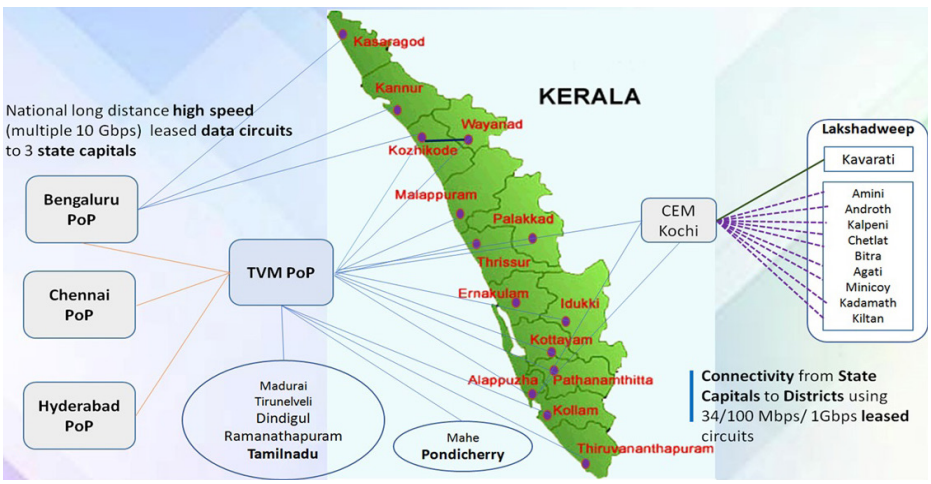
Keralam – Centralised Inspection and Compliance Monitoring System (K-CISCO)

K-CISCO is an extension of K-SWIFT developed to streamline inspection and compliance activities across departments. The platform addresses duplication and improves coordination, transparency and accountability in inspections.

Entrepreneur Support Scheme (ESS)

ESS includes public and office portals for processing applications related to startup, investment and technology assistance schemes. Entrepreneurs can apply online, track approvals and download agreement documents through the portal.

▼ Fig 3.8 : NICNET Connectivity



Labour Department

Employment Portal

The Employment Portal digitises employment exchange services including registration, seniority management, employer management and job fair coordination.

Athidhi Portal

Athidhi is a multilingual portal developed for registration and management of migrant workers in Keralam. The platform supports mandatory registration and related administrative activities for migrant labourers in the state.

Law Department

Case Information System for Keralam Administrative Tribunal (CISKAT)

CISKAT is a case management system developed for Keralam Administrative Tribunal. The platform manages applications from filing to disposal and provides services including case status, judgments, cause lists and case history.

Management Information System for Advocate General Keralam (MISAGO)

MISAGO is a workflow-based platform developed to streamline activities of the office of the Advocate General. The system supports digital exchange of case documents, personnel management and information dissemination to stakeholders.

Public Works / Engineering Department

Project Information & Cost Estimation (PRICE)

PRICE is a works management and cost estimation software developed for infrastructure projects executed using public funds. The platform standardises work methodologies, project estimates and administrative processes across departments.

Registration Department

PEARL

PEARL Suite is a web-based application developed for the Registration Department to support activities of Sub Registrar Offices and online citizen services. The platform integrates with systems including ReLIS and eTaal for digital service delivery.

State Information Commission

RTI for Second Appeal

The RTI for Second Appeal platform enables online filing of Appeal Petitions (AP) and Complaint Petitions (CP) before the State Information Commission. The system supports workflow-based processing, petition tracking and issuance of final orders in English and Malayalam.

Digital Solutions

NICDSign

NICDSign is a cross-platform digital signature solution supporting browser-independent signing using PKCS#11 tokens. The solution supports



▲ Fig 3.9 : DG (NIC) with Team NIC Keralam during his official visit

digital signing of documents and PDF files across Windows, Linux and macOS environments and can be integrated with applications developed in Java, PHP and .NET.

Mobile App Development Competency Centre, Kannur

The Mobile App Development Competency Centre provides support for development of Android and iOS mobile applications for government projects. The centre also supports app publishing, consultancy services and capacity building programs related to mobile technologies.

Sandes (Government Instant Messaging System)

Sandes is an open-source instant messaging platform developed by NIC Keralam for government organisations. The platform supports end-to-end encrypted messaging, encrypted backups and secure OTP delivery through government infrastructure.

Core Services

Keralam's e-Governance framework is powered by a resilient and future-ready digital ecosystem that ensures secure data exchange, uninterrupted connectivity and efficient delivery of public services across government departments. This integrated infrastructure strengthens administrative coordination while enabling scalable citizen-centric services and streamlined internal workflows.

At the core of this ecosystem are NICNET, NKN and the Keralam State Wide Area Network (KSWAN), which connect government offices through high-capacity and secure communication networks. These networks support critical digital services such as internet access, email communication, VPN connectivity, cloud integration, web hosting, LAN support and Wi-Fi services, enabling seamless collaboration and real-time information sharing across departments.

Complementing this infrastructure, NGC Cloud Services provide departments with a centralized, secure and scalable platform for application hosting and data management. The cloud environment enables rapid deployment of digital services, optimized utilization of IT resources and enhanced operational flexibility.

The Aadhaar Enabled Biometric Attendance System (AEBAS) promotes accountability and workforce transparency through real-time attendance tracking and automated monitoring, thereby improving administrative efficiency across the State.

In addition, Video Conferencing (VC) Services facilitate seamless virtual interactions among Central, State and district-level offices, enabling timely decision-making, reducing travel requirements and ensuring continuity in governance operations.

Collectively, these technology-driven initiatives provide a strong digital foundation for efficient governance, secure service delivery and sustainable digital transformation across Keralam.

▼ Fig 3.10 : Inauguration of DIO Workshop by DG (NIC) in presence of Secretary (E & IT) & CEO Keralam, State Coordinator (Keralam), SIO (Keralam & Lakshadweep) and HoG (Personnel)



Important Events Organized

- Keralam achieved recognition in Udyog Samagam 2025 for the second consecutive year under the State Business Reforms Action Plan assessment conducted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India.
- The Hon'ble Minister of General Education and Labour launched the Private Employment Portal developed by NIC Keralam at Thiruvananthapuram.
- The Bhoomi National Conclave was inaugurated by the Hon'ble Chief Minister of Keralam in the presence of Cabinet Ministers and senior officials. The conclave brought together representatives from 22 states to discuss digital land governance initiatives.
- The Hon'ble Chief Minister of Keralam launched the Direct Selling Business Portal along with Direct Selling Guidelines and awareness videos in Thiruvananthapuram.
- The online distribution system for survey records through digital kiosks was inaugurated by the Hon'ble Revenue Minister of Keralam.
- The Chief Secretary of Keralam visited NIC Keralam State Centre to review ongoing IT projects and digital governance initiatives implemented in the state.
- The Director General of NIC inaugurated the DIO/DIA Workshop 2025 at NIC Keralam State Centre in the presence of senior officials including Secretary (E&IT), CEO Keralam, State Coordinator Keralam, DDG & HoG (Personnel) and DDG & SIO (Keralam & Lakshadweep).

Way Forward

NIC Keralam aims to further strengthen digital governance in the state through adoption of emerging technologies including Artificial Intelligence, Data Analytics, Cloud Computing and Cybersecurity solutions. Future initiatives will focus on improving governance efficiency, strengthening digital infrastructure and expanding citizen-centric digital services.

The focus areas include wider adoption of eOffice, integration of departmental digital services, enhancement of interoperability between government systems and promotion of paperless governance. NIC Keralam also plans to expand mobile-enabled services and strengthen secure digital communication infrastructure across departments.

NIC Keralam will continue to provide technical consultancy, capacity building support and digital solutions for government departments while supporting transparent, efficient and technology-driven governance in the state.

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Jhajjar, Haryana

Digital Pathways for Empowered Governance



Edited by **SUSHMA MISHRA**

Located in Haryana within the National Capital Region, Jhajjar balances cultural depth with steady development. Landmarks like Beri Dham (Mata Bhimeshwari Devi Temple) reflect its strong cultural roots.

The NIC District Centre has been central to Jhajjar's digital shift. By introducing user-friendly platforms, real-time data systems, and secure communication, it has streamlined administration and improved service delivery.

More importantly, NIC Jhajjar acts as a bridge between governance and citizens—making systems accessible, processes transparent, and services inclusive. The result is a district that is not just digitally enabled, but meaningfully connected.

ICT Initiatives in the District

Election Queue Management System

A pioneering initiative in electoral management, the Election Queue Management System has transformed the voting experience. By enabling Sector Magistrates to update real-time queue data at polling stations, voters can check waiting times before visiting.

This innovation has reduced overcrowding, improved crowd distribution, and enhanced voter convenience. It reflects how simple yet effective digital interventions can significantly improve public service delivery during large-scale democratic exercises.



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In Jhajjar, governance has moved from counters to screens-becoming faster, clearer, and closer to the citizen. A key initiative by the National Informatics Centre (NIC) District Centre is the seamless digitization of citizen services. Certificates, grievances, and service requests are now handled online with real-time tracking, reducing delays and increasing transparency. By bridging the rural–urban digital gap, this effort ensures inclusive and responsive governance, where every citizen can engage with the system effortlessly.



Election Duty Management Software

The Election Duty Management Software (EDMS) is a comprehensive web-based solution designed to streamline election operations. It automates the collection of employee data, randomization of polling staff, and duty allocation in accordance with Election Commission guidelines.

Key features include bilingual support, automated communication planning, barcode-enabled attendance, and real-time monitoring. The system has been successfully deployed during major elections, including Panchayat, Municipal, Lok Sabha, and Vidhan Sabha elections, as well as in Arunachal Pradesh.

By minimizing manual intervention and ensuring transparency, EDMS has significantly improved the efficiency and integrity of election management.

Voter List Management System (VLMS)

The Voter List Management System (VLMS) is another critical innovation that digitizes the preparation and management of electoral rolls. By leveraging Assembly constituency data, it ensures accuracy and authenticity in voter records.

With features such as bilingual interfaces, photo and non-photo voter lists, advanced search options, and secure publication mechanisms, VLMS enhances transparency and accessibility.

Its successful implementation in multiple elections highlights its robustness and scalability, making it an essential component of modern electoral governance.

Other Key ICT Initiatives

SARAL Portal

The Antyodaya SARAL portal serves as a unified platform offering over 700 government services. It embodies the principles of faceless, paperless, and cashless governance.

Citizens can apply for services online, track application status, and benefit from time-bound delivery under the Right to Service Act. Integration with the Parivar Pehchan Patra (PPP) ensures seamless data access and efficient service delivery.

NIC Jhajjar's consistent support has ensured high performance, maintaining a district score above 9.2, reflecting strong service delivery standards.

District Website

The official Jhajjar district website serves as a comprehensive digital information hub. Developed using the S3WaaS framework, it provides easy access to e-services, RTI applications, tenders, notices, and public information.

By ensuring regular updates and user-friendly navigation, the platform enhances transparency and citizen engagement, reinforcing the principles of open governance.

e-Office Implementation

The adoption of e-Office has revolutionized administrative workflows by transitioning to a paperless system. It enables faster file

movement, real-time tracking, and improved record management.

This has not only enhanced efficiency and accountability but has also contributed to environmental sustainability by reducing paper usage.

CM Window: Grievance Redressal System

CM Window is a flagship initiative that provides a transparent platform for citizens to lodge grievances. With over 15 lakh complaints received and a high resolution rate, the system demonstrates effective governance in action.

NIC Jhajjar plays a crucial role in ensuring smooth operations, monitoring, and technical support, thereby strengthening accountability and responsiveness.

MedLEaPR System

The Medico-Legal Examination and Postmortem Reporting System (MedLEaPR) digitizes medico-legal processes across healthcare institutions. With widespread adoption in Jhajjar, it has significantly improved reporting efficiency and data accuracy.

The onboarding of multiple institutions and doctors reflects its success in standardizing critical healthcare documentation.

Web-HALRIS (Land Records System)

Web-HALRIS is a comprehensive platform for land records and property registration. By digitizing services such as sale deed registration, mutations, and record management, it ensures transparency and efficiency.

The high transaction volume and value recorded in Jhajjar demonstrate the system's reliability and widespread adoption.

Transport and Revenue Services

NIC Jhajjar supports key services such as Vahan, Sarathi, deed registration, and record of rights. These platforms simplify complex administrative processes, making them more accessible to citizens.

Network and Infrastructure

Video Conferencing: Enabling Real-Time Governance

NIC Jhajjar has established a robust video conferencing infrastructure that facilitates seamless communication across administrative levels. It supports project monitoring, grievance reviews, law and order management, and training sessions.

With over 500 sessions annually, the system ensures efficient coordination and decision-making, enabling governance that is both timely and effective.

Support for High-Profile Events and Governance Activities

NIC Jhajjar has consistently demonstrated technical excellence during major events and VIP visits. From managing IT infrastructure during the inauguration of the KMP Expressway to supporting large-scale public programs, the team ensures seamless execution.

Its role in facilitating video conferencing for high-level dignitaries, including the Hon'ble Prime Minister and Chief Minister, highlights its operational reliability and technical expertise.

Accolades

NIC Jhajjar's commitment to excellence has been recognized through multiple awards and accolades:

- 1st Prize for Best Performing District at DIOs Meet 2025
- 1st Position on Sushasan Diwas 2023
- 3rd Position on Sushasan Diwas 2024
- Appreciation from State Election Commission and senior government authorities
- Special Recognition during Azadi ka Amrit Mahotsav

These achievements reflect the district's consistent efforts in promoting efficient and citizen-centric governance.

▼ Fig 4.1 : Chief Minister Good Governance Day 3rd Prize in Overall Performance 2024



> I sincerely acknowledge the significant contributions of NIC Jhajjar in advancing digital governance and strengthening the IT infrastructure of the district. Their pivotal role in implementing e-Governance initiatives has ensured efficient, transparent, and citizen-centric delivery of public services.
>
> The team's dedication to developing, maintaining, and supporting digital platforms has greatly enhanced administrative efficiency and responsiveness. Their consistent efforts and technical expertise have played a vital role in driving innovation at the grassroots level.
>
> I deeply appreciate their commitment to realizing the vision of Digital India and extend my best wishes to the entire team for their continued success and excellence in the future.

Shri Swapnil Ravindra Patil, IAS
Deputy Commissioner, Jhajjar District



Way Forward

Looking ahead, NIC Jhajjar is poised to further strengthen digital governance through innovative and scalable solutions. The continued integration of election management systems, expansion of citizen services, and adoption of emerging technologies will play a key role in shaping the future.

By aligning with the vision of Digital India, NIC Jhajjar aims to create a governance ecosystem that is transparent, efficient, and inclusive. The focus will remain on enhancing citizen experience, improving service delivery, and ensuring that technology reaches every corner of the district.

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Malerkotla, Punjab

Driving Time-Bound Digital Governance

Edited by **VINOD KUMAR GARG**

Malerkotla, the 23rd district of Punjab, is steadily emerging as a digitally enabled administrative centre with growing adoption of technology-driven governance practices. The district administration, supported by the National Informatics Centre (NIC), is leveraging ICT infrastructure and digital platforms to improve operational efficiency, communication, monitoring, and citizen service delivery across departments.

The National Informatics Centre (NIC), District Centre Malerkotla, plays a central role in strengthening the district's digital ecosystem through deployment of e-Governance solutions, secure networking infrastructure, application management, cybersecurity support, and technical consultancy. NIC Malerkotla supports multiple government departments through implementation of digital platforms, capacity-building initiatives, real-time monitoring systems, and paperless administration tools. Through continuous innovation and integration of emerging technologies, NIC Malerkotla is contributing towards transparent, responsive, efficient, and technology-driven governance in the district.

Key ICT Initiatives

SamaySetu

SamaySetu is a flagship digital initiative developed by NIC Malerkotla for time-bound monitoring of official communications and administrative meetings. The platform sends automated WhatsApp and Email notifications regarding newly assigned communications, pending tasks, deadline reminders, and meeting schedules.

The system has been designed to minimize delays in administrative communication and improve workflow management across departments. Officers receive timely alerts regarding pending matters, enabling quicker response and better coordination between offices. The platform also provides centralized monitoring facilities for senior officials, helping them review the status of communications and ensure timely compliance.



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SamaySetu, developed by NIC Malerkotla, is an innovative digital platform designed to streamline administrative communication and ensure time-bound monitoring of official tasks. The platform enables digital tracking of official DAK and meeting schedules while sending automated WhatsApp and Email alerts to officers. By providing real-time reminders and updates, SamaySetu improves coordination, strengthens accountability, and enhances administrative efficiency across departments.

Key features:

- Digital registration and monitoring of official DAK
- Centralized scheduling of administrative meetings
- Automated WhatsApp & Email alerts for officers
- Deadline tracking with automated reminders
- Digital record maintenance of official communications
- Real-time monitoring and status tracking of pending cases

The application improves inter-departmental coordination, reduces delays in official correspondence, and ensures timely compliance with administrative directives. Real-time alerts and centralized monitoring further strengthen accountability, transparency, and decision-making processes within the district administration.

Benefits and Impact

- Improved monitoring of official communications and deadlines
- Faster administrative response and decision-making
- Enhanced transparency and accountability in governance
- Reduced manual processes through digital record management
- Better coordination among departments and officials
- Increased efficiency in handling administrative meetings and communications

Other Key Initiatives

Citizen Awareness Campaign through Bulk Messaging

NIC Malerkotla supported the district administration in sending bulk WhatsApp messages to citizens for stubble burning awareness. The initiative promoted environmental awareness, encouraged compliance with government advisories, and demonstrated the effective use of digital communication tools for citizen outreach.

Drug De-Addiction Registry Portal

NIC facilitated phased implementation of the Drug De-Addiction Registry Portal in coordination with the Health Department. The portal enables centralized monitoring of patient registration and treatment at OOAT and private de-addiction centres through Aadhaar-based authentication and digital records. The system has improved record management and strengthened monitoring of treatment services.

eDAR

NIC Malerkotla supported implementation of the Electronic Detailed Accident Report (eDAR) system in coordination with the Police, Transport, and Health Departments. The system enables digital reporting of road accidents to support faster accident claim processing and better departmental coordination. Multiple training sessions were conducted for departmental officials to ensure

smooth adoption and effective utilization of the platform.

eSanad

NIC played a key role in implementing the eSanad portal for online submission and verification of documents for apostille and attestation services, promoting contactless, cashless, and paperless service delivery for citizens.

eOffice

The eOffice platform has been implemented in the DC Office and SDM offices to promote paperless administration and efficient file movement. NIC conducted extensive training sessions for officials to ensure smooth adoption and effective utilization of the system. The initiative has improved efficiency in file processing and reduced dependency on physical records.

Election IT Support

NIC Malerkotla provided ICT support during elections through systems such as NextGEN DISE for polling personnel deployment and the Poll Day Activity Monitoring System (PAMS) for real-time election monitoring, significantly improving coordination and operational efficiency during electoral processes.

Citizen Services

The district website serves as a digital gateway for citizens, providing access to government schemes, services, public notices, notifications, and district administration updates. Citizens can easily access important information and departmental services through the online platform.

NIC Malerkotla also supports several other digital initiatives including the Punjab Sports Event Portal, IVFRT system, and technical facilitation for schemes such as MMSY, further strengthening digital service delivery and administrative efficiency in the district.

> District Administration Malerkotla, in collaboration with NIC Malerkotla, has undertaken several ICT initiatives to strengthen digital governance and improve administrative efficiency in the district. Through the implementation of various e-Governance initiatives and innovative solutions like SamaySetu, the district administration has been able to enhance transparency, efficiency, and coordination in administrative processes. I appreciate the efforts and technical expertise of NIC Malerkotla in supporting the district administration in delivering better services to citizens through effective digital solutions.
>
> **Shri Viraj S. Tidke, IAS**
> Deputy Commissioner, Malerkotla





▲ Fig 5.1 : Launching of SamaySetu by NIC Malerkotla



▲ Fig 5.2 : Deputy Commissioner Malerkotla, Shri Viraj S. Tidke, IAS, attending the Safer Internet Day awareness workshop as the Chief Guest

ICT Infrastructure and Event Support

NIC Malerkotla provides ICT infrastructure and internet connectivity support for major administrative events, including Chief Minister visits, review meetings, public programmes, and VVIP functions, ensuring seamless digital communication and coordination.

Important Events and Visits

- The SamaySetu application was officially launched by the Deputy Commissioner, Malerkotla, marking a significant step towards strengthening time-bound administrative monitoring and digital governance in the district.
- NIC Malerkotla organised a Safer Internet Day awareness workshop to promote responsible digital usage among students and government officials. The Deputy Commissioner attended the event as Chief Guest.
- NIC regularly provides technical support during major administrative events, review meetings, elections, and VVIP visits, ensuring reliable connectivity and uninterrupted digital communication for the district administration.

Accolades

- Appreciation from the Deputy Commissioner for effective technical support during Lok Sabha Elections 2024
- Recognition for contribution to digital governance initiatives and training programmes
- Appreciation certificates for participation in cybersecurity and capacity-building initiatives

Way Forward

NIC Malerkotla remains committed to strengthening digital governance through innovative ICT solutions. Future efforts will focus on expanding platforms like SamaySetu, improving integration with other government systems, enhancing digital monitoring capabilities, and continuing capacity-building initiatives for government officials. Through technology-driven governance and citizen-centric digital solutions, NIC aims to further improve administrative efficiency, transparency, accountability, and public service delivery across the district.

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eDetection

Strengthening Road Safety Through Intelligent Digital Enforcement



Edited by **NISSY GEORGE**

The increasing volume of vehicular movement across highways and urban corridors has created new challenges for transport enforcement agencies. Traditional enforcement methods based on manual inspection of vehicle documents often require considerable manpower, consume time and leave gaps in compliance monitoring. In response to these challenges, the eDetection application has emerged as a technology-driven platform designed to automate the identification of motor vehicle violations and strengthen digital enforcement mechanisms across the transport ecosystem.

The application acts as an intelligent monitoring system capable of identifying vehicles operating without valid motor vehicle documents such as Tax records, Fitness Certificates, Insurance, Pollution Under Control certificates and Permits. It also assists in identifying blacklisted vehicles and suspicious vehicles using false or manipulated registration plates. By integrating toll transaction data with centralized transport databases, the platform enables automated compliance verification without requiring continuous physical intervention.

Digital Enforcement Architecture

Data Collection and Verification

The operational framework of eDetection begins with the collection of vehicle transaction data from Toll Plazas. Toll operators upload digital records containing vehicle numbers, transaction dates and vehicle class details into the eDetection portal. Once uploaded, the system initiates automated analysis through scheduler-based processing mechanisms integrated with the Vahan database and related transport systems.

The uploaded data is continuously verified against official transport records to identify vehicles operating without valid compliance documents. The platform examines multiple parameters including tax validity, permit status, fitness certification, insurance coverage and PUC compliance. This automated verification process allows authorities to monitor large volumes of vehicle movement efficiently while reducing dependency on manual checks.



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eDetection is an intelligent digital enforcement platform that automatically identifies motor vehicle violations using Toll Plaza transaction data and centralized transport databases. The system detects vehicles operating without valid Tax, Fitness, Insurance, PUC certificates or Permits and automatically generates eChallans through integration with the national eChallan framework. It improves road safety, strengthens compliance, enhances transparency and supports efficient digital transport governance.

Automated eChallan Generation

One of the most significant capabilities of the platform is its integration with the national eChallan system under the "One Nation One Challan" framework. Once a violation is confirmed, the system automatically generates an eChallan against the defaulting vehicle. Vehicle owners can subsequently access challan details digitally and complete payments through the integrated eChallan portal.

The platform also supports manual inwarding and verification for specific pending cases or tax-related violations requiring additional scrutiny. This combination of automation and controlled manual oversight helps maintain enforcement accuracy while ensuring operational flexibility.

Key Functional Capabilities

Intelligent Violation Detection

The eDetection application is capable of identifying a wide range of motor vehicle violations through automated database validation. The platform detects vehicles operating without mandatory documents and flags suspicious entries for enforcement action. It also supports wrong number plate detection by cross-referencing registration details with centralized vehicle records, thereby helping authorities identify counterfeit or fraudulent vehicles.

Analytics and Monitoring

Beyond challan generation, the platform functions as a comprehensive analytical system for transport departments. Authorities can monitor defaulter vehicle data, examine category-wise challan statistics and analyze enforcement trends through integrated dashboards and MIS reports. The application also enables challan history searches and vehicle class comparisons, allowing departments to study compliance behaviour and recurring violation patterns.

Communication and Administrative Efficiency

The system supports SMS notifications for vehicle owners regarding detected violations and challan details. This improves communication and encourages faster compliance. Since the entire workflow is digitally managed, the platform reduces paperwork, minimizes manual errors and strengthens transparency in enforcement operations.

Impact on Road Safety and Governance

The eDetection application contributes significantly to road safety by discouraging vehicles from operating without valid regulatory clear-

ances. Automated monitoring creates a stronger compliance environment and enables enforcement agencies to detect violations continuously rather than relying only on physical inspections.

The platform also improves accountability within transport administration. Since challan issuance and verification are digitally recorded, the enforcement process becomes more transparent and traceable. This reduces the scope for procedural inconsistencies while supporting paperless governance and streamlined enforcement operations.

An equally important contribution of the platform lies in revenue protection. Vehicles operating without valid taxes, permits or certifications often contribute to significant financial losses for transport departments. Through automated detection and challan generation, the application helps improve compliance recovery and strengthens regulatory enforcement.

Implementation Across States

The implementation of eDetection across multiple states demonstrates its scalability and operational effectiveness. In Odisha, the platform has been deployed across 24 NHAI Toll Plazas and has generated more than 155,000 eChallans within approximately 1.9 years. Chhattisgarh has implemented the system across 22 NHAI Toll Plazas and 37 ANPR cameras, resulting in more than 73,000 eChallans in around 1.5 years. Bihar has also witnessed rapid deployment, where implementation across 33 NHAI Toll Plazas produced more than 25,000 eChallans within a single month.

The statistical analysis generated through the platform highlights major categories of violations including fitness defaults, permit violations, tax non-compliance, PUC issues and insurance-related offences. Such insights support evidence-based enforcement planning and targeted compliance drives by transport authorities.

State-Specific Customization

A notable strength of the eDetection platform is its ability to support state-specific customization based on local regulatory priorities. Different states can configure offence categories and enforcement parameters according to operational requirements. This flexibility allows authorities to focus on selected areas such as overload detection, permit monitoring, PUC compliance or insurance verification while maintaining a unified digital enforcement framework.

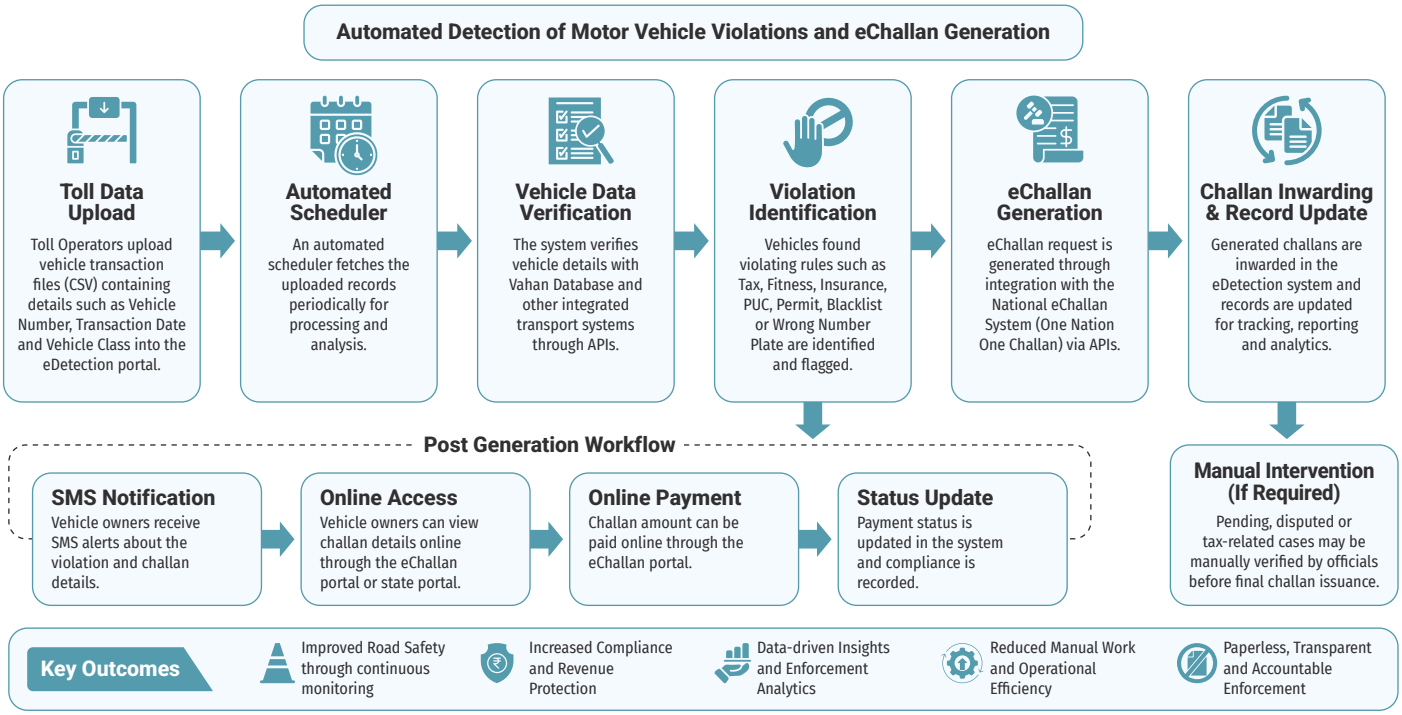
Future Roadmap

The future roadmap of the eDetection application reflects a broader vision for intelligent and integrated transport governance. Planned enhancements include API-based data sharing, development of a dedicated mobile application and integration with Weigh-In-Motion systems for overload offence detection. The platform is also expected to support detection of non-HSRP vehicles and wrong vehicle class identification based on registration records.

Future integration with Vehicle Location Tracking Devices and external systems such as GST, Mining, Port and e-Way Bill platforms may further expand the capabilities of the application. These developments indicate the transition of eDetection from a challan-generation system into a comprehensive digital transport intelligence platform capable of supporting multi-agency coordination and advanced compliance monitoring.

Conclusion

The eDetection application represents a major advancement in digital transport enforcement by combining automated data analysis, centralized database integration and electronic challan generation within a unified governance framework. Through intelligent monitoring and automated compliance verification, the platform strengthens road safety, improves enforcement transparency and enhances administrative efficiency.



▲ Fig 6.1 **eDetection process flow diagram**

Its successful deployment across multiple states demonstrates the practical value of technology-driven enforcement systems in modern transport governance. As the platform evolves with additional integrations and analytical capabilities, eDetection is expected to play an increasingly important role in building safer, more accountable and digitally empowered road transport systems across the nation.

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HGVMS

Transforming Home Guards Volunteers Management Through Digital Governance



Edited by **SUSHMA MISHRA**

The increasing scale and complexity of administrative operations in modern governance demand integrated digital platforms that can ensure efficiency, transparency and accountability. Keeping this objective in view, National Informatics Centre (NIC) Himachal Pradesh designed and developed the Home Guards Volunteers Management System (HGVMS) for the Himachal Pradesh Home Guards Department as a comprehensive digital solution for managing the complete lifecycle of Home Guards Volunteers across the State.

The platform, accessible through the HGVMS Portal (https://hgvms.hp.gov.in/) , was formally launched on 22 March 2026 by Hon'ble Chief Minister, Shri Sukhvinder Singh Sukhu in the presence of Shri Kamlesh Kumar Pant, Additional Chief Secretary (Home & Revenue), Smt. Satwant Atwal, Director General of Police (Home Guards), Shri D.C. Rana, Director-cum-Ex-officio Special Secretary (Revenue & Disaster Management), Shri Ajay Singh Chahal, DDG & State Informatics Officer, NIC Himachal Pradesh, along with senior officers from the Home Guards Department and NIC Himachal Pradesh.

HGVMS has been conceptualized as an end-to-end workflow-based digital platform aimed at improving coordination, transparency and operational efficiency in the deployment and management of Home Guards Volunteers. The initiative reflects a collaborative effort towards leveraging digital technology for strengthening administrative processes and enabling governance.

Home Guards Volunteers Management System (HGVMS) is a digital platform developed by NIC Himachal Pradesh for efficient management of Home Guards Volunteers across the State. The system streamlines processes such as enrolment, deployment, attendance and honorarium management through a centralized online platform, ensuring transparency, accountability and faster coordination among all stakeholders.



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Understanding the Need for Digital Transformation

The Home Guards organization plays a critical role in supporting law enforcement agencies, disaster response operations, public safety management and various government activities across Himachal Pradesh. Managing such a large volunteer-based ecosystem involves continuous coordination among Headquarters, Battalion Commandants, requisitioning departments and Home Guards Volunteers.

Prior to digitization, several operational processes such as volunteer enrolment, deployment approvals, attendance maintenance and honorarium processing were largely manual and distributed across multiple administrative levels. These processes often resulted in delays, duplication of records and challenges in monitoring operational activities efficiently.

During detailed interactions with departmental stakeholders, it became evident that there was a need for a centralized digital platform capable of integrating all operational workflows into a single ecosystem. The objective was not only to digitize records, but also to create a transparent and scalable system that could support efficient administration and real-time monitoring.

With this vision, NIC Himachal Pradesh designed HGVMS as a unified platform covering the entire lifecycle of Home Guards Volunteers management—from enrolment to honorarium disbursement.

End-to-End Workflow Automation

One of the key objectives during the development of HGVMS was to ensure that all major operational processes are integrated through structured digital workflows. The system was therefore designed with multiple interconnected modules to support seamless administration.

Master Data Management

The system maintains centralized master records related to volunteers, battalions, administrative units and requisitioning departments. Standardized data management ensures consistency and accuracy across the platform.

Home Guards Volunteers Enrolment

The enrolment module facilitates digital registration and maintenance of volunteer records. The process significantly reduces manual paperwork and enables faster processing and verification of volunteer information.

Character Sheet Management

The platform enables secure digital management of character sheets and service-related information of volunteers, ensuring efficient record maintenance and retrieval.

Training Management

Training is a vital component in enhancing operational readiness and capacity building. The system provides facilities for managing training schedules, participation details and completion records in a structured digital environment.

Requisitioner's Onboarding

Different government departments and agencies regularly requisition Home Guards Volunteers for various operational requirements. HGVMS provides a streamlined onboarding process for requisitioning departments, enabling standardized digital interactions.

Requisitions Management

The requisition management module enables online submission, approval and monitoring of deployment requests. This reduces administrative delays and improves coordination among stakeholders.

Duty Orders Management

Duty allocations and deployment orders are generated digitally through the system, ensuring better transparency and timely communication.

Attendance Management

Attendance recording and monitoring have been streamlined through digital workflows, enabling accurate tracking of volunteer deployment and duty performance.

Wages and Honorarium Management

The platform also automates wages and honorarium processing, reducing delays and improving transparency in payment management. Home Guards Volunteers can track their deployment status, attendance and payment information in real time through the system.

Enhancing Transparency and Operational Efficiency

A major focus during the development of HGVMS was to ensure transparency and accountability across all administrative levels. The system provides a centralized repository of operational information, enabling authorities to monitor activities more effectively.

Digital workflows minimize dependency on fragmented manual records and significantly reduce the possibility of errors and inconsistencies. Every stage of the process—from requisition submission to attendance recording and honorarium generation—is digitally tracked and auditable.

The platform also enables administrators to generate reports, analyze deployment patterns and monitor operational activities in real time. These capabilities support faster and more informed decision-making at various levels of administration.

For Home Guards Volunteers, the platform introduces greater transparency and accessibility by providing visibility into deployment details and payment status. This strengthens trust and improves communication between the administration and volunteers.

Technology Architecture and System Design

From a technology perspective, HGVMS has been designed using a modern microservices-based architecture to ensure scalability, security and future readiness.

The platform follows a strict microservices architecture where each business capability is implemented as an independent service. This modular approach improves maintainability, scalability and flexibility while simplifying future enhancements and integrations.

The entire platform has been containerized using Docker technology and deployed on Linux servers behind the NGINX (OpenResty) reverse proxy infrastructure. External user traffic enters through secure HTTPS channels managed by NGINX, which intelligently routes requests to the appropriate frontend and backend containers.

The services communicate with each other through secured REST APIs, ensuring secure and seamless data exchange across the ecosystem.

This architecture offers several operational and technical advantages:

- Enhanced scalability and performance
- Better fault isolation and reliability
- Simplified deployment and maintenance
- Improved resource utilization
- Secure and high-availability operations
- Flexibility for future expansion and integration

The containerized deployment model also ensures portability and efficient infrastructure management, making the platform adaptable to evolving operational requirements.

Supporting Data-Driven Governance

HGVMS has been designed not merely as an operational application but also as a decision-support platform for administrators and policymakers.

The centralized database and analytics-enabled workflows provide valuable insights into deployment trends, attendance patterns, volunteer utilization and payment processing. Such insights support better planning, resource optimization and operational monitoring.

Real-time visibility into system activities enables authorities to identify bottlenecks quickly and improve administrative responsiveness. The platform thereby contributes towards strengthening governance through data-driven decision-making and integrated digital administration.

Future Roadmap

The future roadmap includes a mobile application for volunteers, SMS and WhatsApp notifications, GIS-enabled deployment tracking, biometric attendance integration and AI-powered analytics dashboards. Planned enhancements also include integration with State Treasury Systems, e-Office integration and a disaster response command dashboard to strengthen operational efficiency and emergency management capabilities.

Conclusion

The development of HGVMS is a collaborative initiative of the Himachal Pradesh Home Guards Department and NIC Himachal Pradesh aimed at creating a modern, secure and efficient digital governance platform. The system has been designed with a strong focus on simplifying departmental workflows, improving transparency, reducing manual intervention and enabling seamless coordination among stakeholders. Built on a scalable and workflow-driven architecture, HGVMS is expected to significantly strengthen the management and deployment of Home Guards Volunteers across Himachal Pradesh while supporting the State's vision of digitally empowered governance.

▼ Fig 7.1 : Shri Sukhvinder Singh, Hon'ble Chief Minister, HP launching the Home Guard Volunteers Management System



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Sewa Setu Grievance Management Framework

An n8n-powered intelligent AI solution



Edited by **VINOD KUMAR GARG**

Traditional grievance management processes rely heavily on manual triaging and static rule-based workflows. This creates significant "friction points" in which mismatches between user-selected categories and true intent lead to incorrect routing, processing queues, and SLA breaches. In citizen-centric service delivery platforms such as Sewa Setu (sewasetu.assam.gov.in), which currently handles over 10,000 applications daily, the timely and efficient resolution of high-volume grievances remains a critical challenge with substantial social impact. At this scale, grievances generated across multiple channels, including web portals, email, and call centres, create a continuous stream of unstructured data.

To address this, NIC Assam deployed an agentic AI-driven grievance management framework using n8n as the central orchestration layer. The framework leverages a BERT-based transformer model fine-tuned on the Sewa Setu grievance dataset to perform intent inference by accurately interpreting unstructured grievance text and identifying its underlying context, while ensuring data residency within government infrastructure. This enables the dynamic routing of cases into predefined execution workflows.

Through this framework:

- **Payment-related grievances** are handled via "Zero-Touch" auto-resolution; the system queries gateways to validate and close successful transactions without human intervention.
- **Service-delay cases** are aggregated into 24-hour batches and automatically dispatched for departmental review and monitoring.
- **Technical issues** are automatically assigned to specific developers and converted into trackable tickets in project management platforms such as Jira or Taiga.

This orchestration significantly reduces manual effort with a triage accuracy of over 90%, and shifts the operational focus from reactive redressal toward proactive service-level governance.



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NIC Assam's Sewa Setu Grievance Management Framework is an n8n-powered agentic AI solution that automates grievance classification, routing, and resolution. Using a fine-tuned RoBERTa model for intent inference, the system enables zero-touch payment resolution, intelligent service-delay monitoring, and automated technical ticketing. The framework improves triage accuracy, reduces resolution time, strengthens SLA compliance, and supports proactive, citizen-centric digital governance.

Proposed Solution

The framework replaces traditional linear, rule-based handling with a centralised agentic orchestration layer built on n8n. n8n serves as a low-code workflow engine that coordinates intake, intelligent decisioning, and downstream actions across disparate systems. By integrating seamlessly with ticketing platforms, communication channels, and external APIs, the framework remains highly configurable without requiring heavy custom code.

The solution moves beyond simple automation by combining AI-based intent inference with dynamic execution. While routine cases are resolved autonomously, complex exceptions are routed to the appropriate teams with complete context and auditability.

Solution Approach

The framework is deployed through a standardised four-step process: API Handshake, Payload Mapping, Logic Configuration, and Dashboard Synchronisation. The workflow, as depicted in Figure 1, is triggered via a secure webhook the moment a grievance is registered, initiating an automated processing pipeline across four distinct layers.

Grievance Preprocessing and Cognitive Classification

At the cognitive layer, a RoBERTa, a robustly optimised BERT pre-trained model, fine-tuned on the Sewa Setu grievance dataset, processes raw grievance text to classify it into three core categories: payment-related, service delay, and technical grievances.

- **Intent Inference:** The model is trained on historical data to recognise common terminology and failure scenarios, allowing it to infer true user intent even when dropdown selections are incorrect.
- **Data Residency:** Local execution ensures that sensitive government data remains within secure infrastructure while delivering near-real-time insights.
- **Dynamic Decisioning:** This layer ignores flawed user inputs and feeds accurate context into the orchestration flow, where routing and actions are determined dynamically.

Multi-Path Workflow Execution

The Orchestration Layer manages decision logic, retries, and state tracking for three primary paths:

- **Payment-related (Zero-Touch):** The system queries payment gateways to verify transaction status. Successful transactions are auto-closed

with SMS notifications sent to the citizen, while failed or ambiguous cases are escalated to service engineers as trackable tickets in project management platforms such as Jira or Taiga for further investigation.

- **Service Delays (Intelligent Aggregation):** Instead of individual alerts, these cases are batched over 24 hours. A scheduled morning brief is emailed to departments, ensuring structured follow-up without notification fatigue.
- **Technical Issues (Exception Routing):** Technical issues are mapped directly to service engineers. Structured tickets are created in Taiga or Jira, and stakeholders are instantly alerted via Slack or direct messaging.

et, n8n fetches the resolution comments and updates the original grievance record in real time.

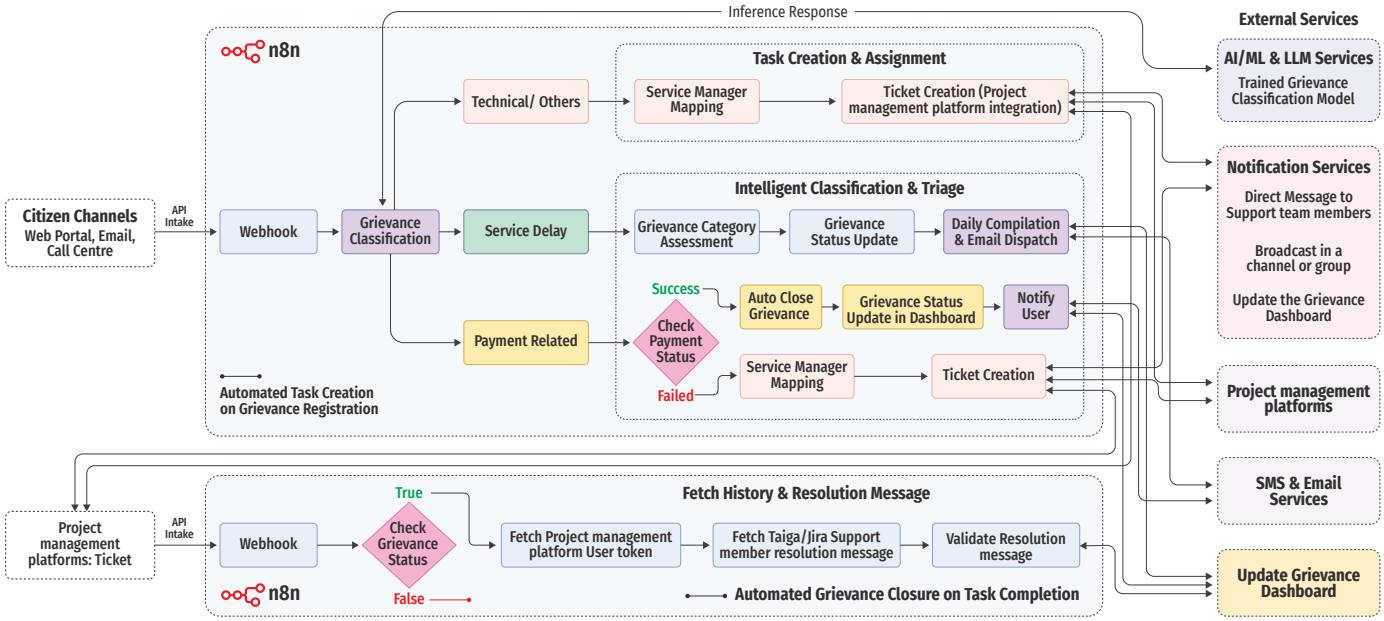
- **Process Resilience:** State persistence and auto-retry logic ensure that no data is lost during external system downtimes.
- **Unified Analytics:** A Grievance Analytics Dashboard, as shown in Figure 2, provides a consolidated view of total cases (e.g., 1,722 grievances received for the month of April 2026), resolution rates, and category-level trends. This visibility supports proactive intervention by identifying systemic failures before they escalate.

Performance Impact & Metrics

Implementation at Sewa Setu has fundamentally shifted operational focus by eliminating manual triaging. The agentic framework has replaced rule-based bottlenecks with intelligent orchestration, as evidenced by the following performance gains(Table : 8.2).

resilience, moving beyond simple automation to ensure government-grade reliability. Key controls include:

- **SLA-Based Escalation:** Automated monitoring triggers escalations if response timelines are breached.
- **Configurable Routing:** Department-specific logic and ownership rules can be updated within n8n without modifying the core codebase.
- **Multi-Channel Notifications:** Stakeholders receive alerts via email, Slack, SMS, and dedicated framework dashboards.
- **State Persistence:** Built-in persistence ensures that if an external system fails, the workflow resumes from the last recorded state, ensuring zero data loss.



▲ Fig 8.1 **Grievance Management Framework Architecture**

Synchronization, Resilience, and Dashboarding

The action layer ensures that the "black hole" of ticketing is eliminated through constant synchronisation:

- **Automated Closure:** The system monitors external platforms; when an engineer closes a ticket, n8n fetches the resolution comments and updates the original grievance record in real time.

Controls and Reliability

The framework is engineered for process

▼ Table 8.2 : Performance Impact & Metrics

Key Performance Indicator	Legacy Manual Process	Agentic Framework
Triage Accuracy	~95-100% (Manual)	**>94% (AI-Verified)**
Mean Time to Resolution	Days/Weeks	**Minutes (Routine) / <24h (Complex)**
Auto-Resolution Rate	None	**High (Zero-touch)**
Escalation Rate	High	**Significantly Reduced**
SLA Compliance	Reactive	**Proactive & Automated**

Way Forward

The framework represents a shift toward predictive governance. By decoupling routine triaging from human administrative bandwidth, the state can focus on high-value citizen interventions. This modular, n8n-based architecture is designed for rapid horizontal scaling, providing a provably efficient, transformative and highly adaptable blueprint for automated, intelligent grievance management across all state-level digital portals in India.

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Mission Bhagiratha

Telangana's Integrated Digital Water Network



Edited by **NISSY GEORGE**

Mission Bhagiratha is a flagship drinking water initiative of the Government of Telangana, designed to deliver safe, treated piped water to every household in the State. Covering nearly 10 million citizens across 5.5 million households, it represents one of the largest centralized rural water supply networks in the world.

At this scale, infrastructure alone is not enough—what becomes equally critical is visibility, traceability, and the ability to govern the system in real time.

To address this, the State has implemented an advanced Enterprise WebGIS-based Water Infrastructure Management System. The platform serves as a statewide spatial decision-support system, providing end-to-end visibility across the water supply value chain—from source to service delivery. In doing so, it establishes Telangana as a national benchmark in technology-enabled water governance.

An Integrated Digital Water Network Architecture

The Enterprise WebGIS platform provides end-to-end geospatial visibility of the entire water supply value chain—from raw water abstraction to last-mile household distribution. It integrates and spatially maps all critical infrastructure components within a unified digital environment, enabling a comprehensive view of system design and operations.



Mission Bhagiratha's Enterprise WebGIS platform transforms rural water supply into a data-driven governance system. By integrating geospatial asset mapping, habitation-level monitoring, real-time analytics, and national platform linkages, it enables end-to-end visibility, improves service reliability, and establishes a scalable, replicable model for technology-enabled public infrastructure management.



The system brings together the following infrastructure layers:

Source and Bulk Water Infrastructure

Surface water reservoirs
- Intake wells and intake structures
- Raw water transmission mains
- Water Treatment Plants (WTPs)

Treated Water Storage & Regulation

- Sumps
- Ground Level Balancing Reservoirs (GLBRs)
- Break Pressure Tanks (BPTs)
- Overhead Balancing Reservoirs (OHBRs)
- Overhead Service Reservoirs (OHSRs)

Conveyance & Distribution Network

- Gravity mains
- Pumping mains
- Pumping stations and electromechanical assets
- Control valves and pressure regulation systems
- In-village distribution networks
- Functional Household Tap Connections (FHTCs)

By integrating these components within a single geospatial framework, the platform enables seamless visualization of the network, supports system-level understanding, and provides a reliable foundation for planning, monitoring, and operational management.

Zoning-Based Network Governance Model

By integrating hydraulic conveyance components with administrative and habitation boundaries, the system enables end-to-end traceability of the water supply chain—from source sustainability to the consumer endpoint.

The WebGIS application incorporates multi-tier administrative boundaries—Segment, District, Mandal, Constituency, and Habitation—systematically linked to corresponding service reservoirs. This structured geospatial architecture provides a consistent framework for planning, monitoring, and governance of the water supply network.

Through this zoning-based configuration, officials can compare system performance across regions, reinforce accountability through clearly defined spatial jurisdictions, identify service deficiencies and distribution imbalances, and take timely, data-driven decisions.

By linking administrative hierarchies with habitation-level spatial datasets within a unified geospatial environment, the platform establishes a coherent spatial intelligence layer. This integration has significantly improved operational efficiency while strengthening evidence-based infrastructure planning under Mission Bhagiratha.

Advanced Functional Capabilities

End-to-End Network Coverage Analytics

The GIS platform enables full network tracing from intake structures to habitation-level endpoints. Engineers can assess service coverage



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and identify partially served habitations, tail-end supply deficiencies, network discontinuities, and distribution inequities.

This spatial analysis supports prioritized infrastructure strengthening and more effective last-mile connectivity planning.

Identification of Infrastructure-Deficient Habitations

The system geospatially identifies habitations lacking critical infrastructure, including:

- Absence of OHSRs
- Isolated or remote settlements
- Hilly or topographically constrained areas
- Network dead-ends

These spatial diagnostics enable targeted, micro-level engineering interventions such as decentralized storage, dedicated pumping arrangements, alternative local sources, and network reconfiguration.

The result is a more inclusive and context-responsive approach to rural water service delivery.

Large-Scale Digitization of Rural Distribution Networks

In one of the largest rural pipeline mapping exercises in India, approximately 65,000 km of in-village distribution pipelines were digitized within a six-month period.

A specialized GIS editing tool within the platform enables precise mapping of village-level pipelines using high-resolution ESRI satellite imagery as the reference layer.

This transition from paper-based drawings to geo-referenced digital assets significantly enhances data reliability, supports asset lifecycle management, and enables long-term infrastructure planning.

Real-Time Water Supply Monitoring Dashboard

The platform incorporates a thematic, color-coded geospatial dashboard presenting habitation-level water supply status across the State, enabling rapid situational assessment and time-sensitive decision-making.

Supply Status Classification:

- Green – Fully Supplied
- Orange – Above-Average Supply
- Yellow – Partially Supplied
- Red – No Supply

By integrating operational data with geospatial visualization, the system helps identify service gaps and detect anomalies such as pipeline failures, pump malfunctions, power interruptions, or source depletion.

This enhances monitoring efficiency, reduces response time, and improves overall service reliability.

Integrated Water Quality Surveillance

The platform maps the State's water quality laboratory network, including:

- NABL accreditation status
- Testing parameters (chemical and bacteriological)
- Laboratory infrastructure and instrumentation
- Technical manpower
- Geospatial locations

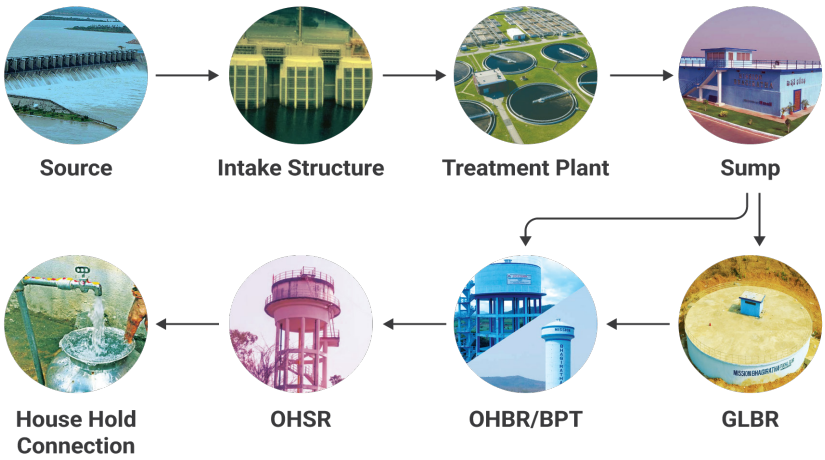
By integrating laboratory data within the GIS environment, the system strengthens water quality monitoring and enables more coordinated surveillance across regions.

High-Resolution Spatial Visualization

Integration with high-resolution ESRI satellite imagery enables detailed visualization and accurate ground-referenced mapping of infrastructure assets.

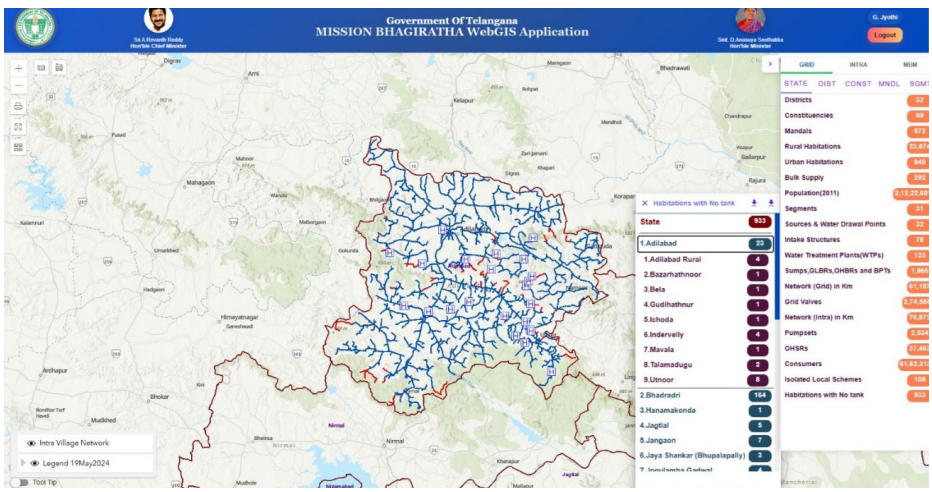
This supports validation of pipeline alignments, assessment of terrain and land-use conditions, and informed planning for new infrastructure.

Overlaying asset data onto imagery improves spatial accuracy and reduces field-level ambiguity in decision-making.



▲ Fig 9.2 **Mission Bhagiratha Water Supply System**

▼ Fig 9.1 : Mission Bhagiratha WebGIS Application



A Statewide Geospatial Water Infrastructure Repository

The platform manages one of the largest rural water GIS repositories in India, serving as an integrated digital backbone for the entire infrastructure lifecycle—planning, execution, monitoring, maintenance, and policy formulation.

The system currently maintains a comprehensive geospatial dataset of water infrastructure and administrative coverage across the State:

Administrative Coverage

- 32 Districts
- 99 Constituencies
- 31 Segments
- 572 Mandals
- 23,671 Rural Habitations
- 943 Urban Habitations

Source and Intake Infrastructure

- 32 Surface Water Sources
- 78 Intake Structures

Treatment & Storage Infrastructure

- 123 Water Treatment Plants (WTPs)
- 775 Sumps
- 190 Ground Level Balancing Reservoirs (GLBRs)
- 210 Break Pressure Tanks (BPTs)
- 691 Overhead Balancing Reservoirs (OHBRs)
- 36,473 Village OHSRs

Network Infrastructure and Coverage

- 1.35 lakh km of pipeline network
- 292 Bulk Water Supply connections
- Coverage of approximately 2.4 crore population

This extensive geospatial repository provides a unified and reliable data foundation, enabling coordinated infrastructure management and informed decision-making at all administrative levels.

Integration with National-Level Digital Platforms

The WebGIS platform is integrated with the PM Gati Shakti National Master Plan (NMP) Portal, enabling structured geospatial data exchange and standardized integration of pipeline network layers into the national infrastructure framework.

This integration facilitates alignment between State-level infrastructure systems and national planning initiatives, ensuring greater coherence in infrastructure development.

Seamless interoperability with the Gati Shakti platform also supports coordinated, multi-sectoral planning across key domains such as roads, power, irrigation, and telecommunications. By situating water infrastructure within a broader national geospatial ecosystem, the platform strengthens cross-departmental collaboration and integrated decision-making.

Transparency & Accountability

The deployment of GIS-enabled mapping and analytical dashboards has strengthened transparency in system monitoring and service delivery. By providing access to reliable, location-based data, the platform enables more consistent and evidence-based oversight across administrative levels.

With role-based access to verified geospatial information, decision-makers can monitor infrastructure performance and service status in near real time. This improves traceability of assets and operations, supports timely identification of service gaps, and enables more accountable, outcome-oriented governance.

By shifting from fragmented reporting to a unified spatial data framework, the system enhances both visibility and institutional accountability in rural water supply management.

> I am pleased to share that the Mission Bhagiratha Department is advancing towards digital transformation. The Mission Bhagiratha WebGIS-based Water Infrastructure Monitoring System has emerged as a powerful governance tool, strengthening our ability to plan, monitor, and manage the State's drinking water supply system.
>
> The WebGIS application offers end-to-end spatial visualization of drinking water infrastructure, from surface water sources to the habitation level, enabling effective asset monitoring and long-term sustainability. A key achievement under this initiative is the digitization of nearly 65,000 kilometers of in-village pipeline network within a short timeframe by our field engineers, in accordance with National Jal Jeevan Mission (NJJM) guidelines.
>
> Advanced features such as functionality-wise asset dashboards, Water Quality Laboratories information, and Water Supply Status dashboards have significantly enhanced transparency, monitoring, and data-driven decision-making.
>
> The platform has become an indispensable instrument of governance, aligning seamlessly with the Department's vision of providing daily potable drinking water to every rural household in Telangana. Its integration with the Irrigation Department's reservoir water level data and its linkage of asset information with the PM GatiShakti National Master Plan Portal reflect effective multi-departmental coordination.
>
> I place on record my sincere appreciation for the support and technical expertise extended by NIC, Hyderabad, whose contributions were vital to the successful implementation of this initiative.

Shri G. Krupakar
Engineer-in-Chief (ENC), HoD Mission Bhagiratha
Government of Telangana



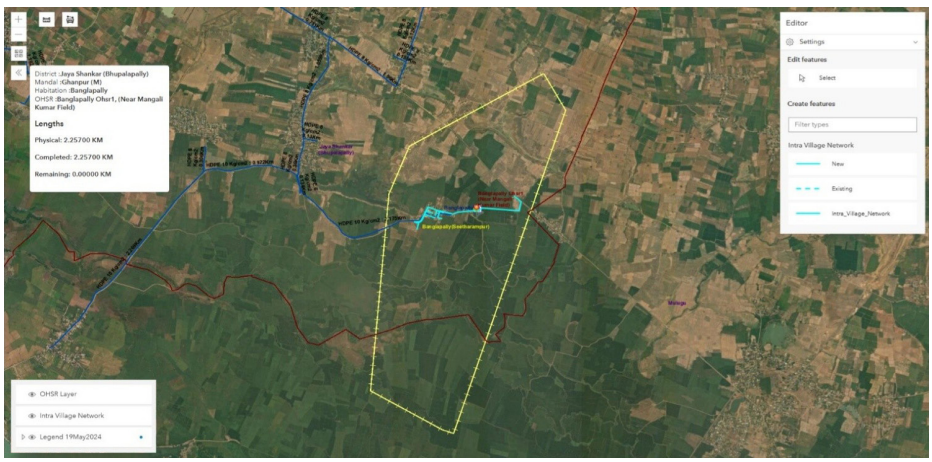
Conclusion

The Mission Bhagiratha WebGIS platform represents a comprehensive, technology-enabled framework for next-generation water governance. By integrating end-to-end asset geotagging, habitation-level service monitoring, real-time analytical dashboards, high-resolution satellite imagery, water quality surveillance, and interoperable data linkages, the platform has significantly strengthened the planning, monitoring, and management of rural water supply infrastructure.

More importantly, it demonstrates a shift from static infrastructure management to a dynamic, data-driven governance model. The ability to visualize, analyze, and monitor the entire water supply network within a unified geospatial environment has improved operational efficiency, enhanced service reliability, and enabled more responsive decision-making.

As a scalable and interoperable system, the platform offers a replicable model for other states and sectors seeking to adopt geospatial technologies for large-scale public service delivery.

▼ Fig 9.3 : Intra-Village Water Supply Network



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Sanghamitra

International Women's Day at NIC Delhi: Not Just a Celebration, But a Reflection



On 8 March 2026, the auditorium at the Administrative Block of Pradhanmantri Sangrahalaya, New Delhi, witnessed a vibrant and meaningful celebration as the National Informatics Centre (NIC) marked International Women's Day. The occasion brought together women employees of NIC, along with outsourced female staff from various divisions, to recognize and celebrate their invaluable contributions to the organization and society..

The programme commenced with the ceremonial lighting of the lamp, setting a formal and respectful tone for the event. What followed was a thoughtfully curated series of activities that reflected both creativity and camaraderie among participants.

The celebration featured a variety of performances and engagements, including music, reflections by colleagues, a confident and spirited ramp walk, and interactive team-building games. A technology-based quiz added an intellectual dimension to the programme, reinforcing the central role of knowledge and expertise in NIC's work culture. These activities not only showcased talent but also fostered a sense of unity and shared purpose.

The event was graced by the Director General, NIC, Shri Abhishek Singh, along with senior officers including Shri Rajesh Pathak, Smt. Sadhna Pathak, Shri VTV Ramana, and Shri Ashok Kaul. Their presence underscored the importance of the occasion and reflected the organization's commitment to acknowledging and supporting the contributions of women professionals.

A particularly significant segment of the programme was the felicitation of women retirees of the year. Their years of dedicated service were formally recognized, highlighting their enduring contribution to the organization and leaving a lasting impression on all present.

In his address, the Director General extended his greetings on the occasion and emphasized the vital role played by women in strengthening India's digital governance ecosystem. He highlighted that diversity and inclusivity are essential drivers of innovation and organizational growth, and reaffirmed NIC's commitment to fostering an equitable and supportive work environment.

The programme was conceptualized and executed within a short timeframe by Smt. Usha Saxena, Smt. Anupam Srivastava, Smt. Ramya Rajamanickam, and Smt. Richa Tiwari, under the guidance of Dr. Rajesh Pathak and Shri Deepak Saxena. The seamless coordination and support provided by the Administration, Finance, and Infrastructure divisions ensured the success of the event.

The Multimedia Division of NIC documented the celebration and shared highlights across social media platforms, extending the reach of the event beyond the auditorium.

The celebration served not only as a tribute to the achievements of women at NIC but also as a reminder of their integral role in shaping institutions. It reinforced the understanding that while technology forms the backbone of NIC's mission, it is the people—particularly the dedication and resilience of women—that truly drive its progress.



Technology Update

IDC Trivandrum Model

Building a Secure DevOps Lab for Government Infrastructure



Edited by **MOHAN DAS VISWAM**

In recent years, the shift toward microservices and cloud-native architectures has quietly transformed how government applications are designed and delivered. Systems that once evolved slowly now demand rapid iteration, continuous integration, and uncompromising security. Yet, within government infrastructure, this transformation must unfold in a controlled, sovereign, and policy-compliant environment.

It is within this context that the DevOps Lab at National Informatics Centre (NIC) IDC Trivandrum emerges—not merely as a technical setup, but as a working model of modern application lifecycle management within government boundaries.

Established by NIC CEM Kochi, the lab is designed as a hands-on learning and demonstration platform, simulating a real-world enterprise DevOps ecosystem using dedicated virtual machines within IDC infrastructure. Each machine is assigned a specific role, and together they form a tightly integrated environment where development, deployment, security, and monitoring converge into a seamless pipeline.

From Code to Citizen : An Integrated DevOps Architecture

At its core, the IDC DevOps Lab embodies a structured pipeline that begins with source code and culminates in secure, monitored service delivery. Rather than functioning as isolated tools, each component participates in a continuous, interdependent workflow.

The journey begins with version-controlled code, flows through automated integration and testing, advances into containerized deployment, and finally reaches users through secure and governed access layers—all under continuous observation.



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The DevOps Lab at NIC IDC Trivandrum demonstrates a secure, scalable, and policy-compliant model for modern government application delivery. Integrating tools like Git, Jenkins, Docker, Kubernetes, Keycloak, and ELK, the lab enables automated development, deployment, monitoring, and governance within sovereign infrastructure, supporting resilient and citizen-centric digital services.

Development and Integration: Establishing the Pipeline Foundation

The lifecycle of any application in the lab begins with Git, the distributed version control system that anchors collaborative development. By maintaining centralized repositories with full traceability, Git ensures that every change is recorded, auditable, and reversible—an essential requirement in government environments.

As soon as code is committed, the pipeline is set into motion by Jenkins. This automation server orchestrates build processes, executes test cases, and prepares applications for deployment without manual intervention. The emphasis here is not merely speed, but consistency and repeatability.

Quality assurance is embedded directly into this stage through SonarQube, which performs static code analysis to detect vulnerabilities, enforce coding standards, and reduce technical debt. In systems where reliability and security are non-negotiable, this early validation becomes critical.

Containerization & Deployment: Ensuring Consistency and Sovereignty

Once validated, applications are packaged into containers using Docker. This ensures that applications behave consistently across environments, eliminating discrepancies between development and production systems.

These container images are stored within a private registry hosted inside the IDC infrastructure. This design decision is particularly significant: it ensures that sensitive government application artifacts remain within NIC-controlled environments, reinforcing data sovereignty and controlled access.

Deployment is managed by Kubernetes, the orchestration backbone of the lab. It enables automated scaling, self-healing of applications, load balancing, and efficient resource utilization. By organizing workloads into logical units and isolating environments, Kubernetes supports both operational efficiency and governance.

To simplify the management of complex deployments, Helm is used as a package manager. It allows applications to be deployed, upgraded, or rolled back with minimal effort, reducing operational overhead while maintaining consistency across environments.

Security and Governance: Centralized Control in a Distributed System

In a microservices architecture, where multiple services interact across domains, identity and access management becomes a central concern. Within the IDC lab, this responsibility is handled by Keycloak, which acts as a centralized identity provider.

Supporting protocols such as OAuth2 and OpenID Connect, Keycloak enables single sign-on, role-based access control, and token-based authentication. Users authenticate once and gain access to multiple services, while

administrators retain granular control over roles and permissions.

Complementing this is Apache APISIX, which functions as the API gateway—the unified entry point into the system. It routes incoming requests to appropriate backend services while enforcing policies related to authentication, rate limiting, and request validation. This ensures that all access to microservices is both secure and governed.

At the infrastructure level, Rancher provides centralized cluster management. It offers administrators a comprehensive view of clusters, workloads, and policies, simplifying the management of distributed environments and strengthening governance.

Observability: Seeing the System in Motion

A system, no matter how well designed, is only as reliable as its observability. The IDC DevOps Lab addresses this through the ELK Stack—Elasticsearch, Logstash, and Kibana.

Logs from applications, containers, and infrastructure components are aggregated and processed in real time. Kibana dashboards provide intuitive visualization, enabling administrators to monitor system health, trace errors, and respond to anomalies with speed and precision.

This continuous visibility ensures that the system remains not only functional, but predictable and accountable.

The Workflow in Practice: A Continuous, Governed Lifecycle

When viewed end-to-end, the lab represents more than a collection of tools—it is a living pipeline.

A developer commits code to the repository. Jenkins triggers automated builds and tests. SonarQube validates code quality. Docker packages the application into containers, which are stored securely in the private registry. Kubernetes orchestrates deployment, while Helm simplifies release management. Users access services through APISIX, authenticated via Keycloak. Meanwhile, ELK continuously monitors system behavior, and Rancher ensures administrative control.

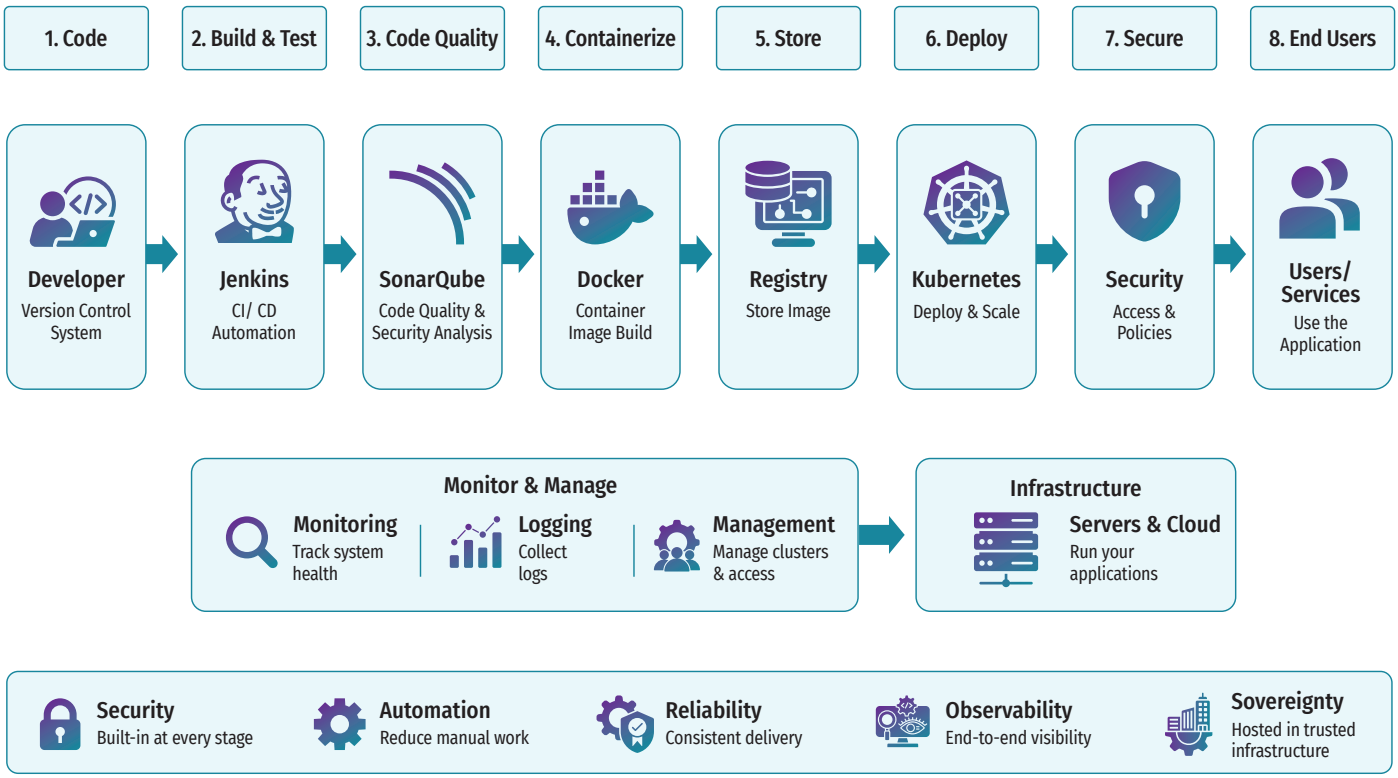
Each stage flows into the next, creating a lifecycle that is automated, secure, and observable at every step.

A Model for Scalable Government DevOps

The IDC DevOps Lab at NIC Trivandrum stands as a practical blueprint for modernizing application delivery within government ecosystems. It demonstrates how open-source and enterprise-grade tools can be integrated into a cohesive architecture that respects the unique constraints of public infrastructure—security, sovereignty, and governance—while embracing the agility of DevOps practices.

Beyond its role as a training and demonstration platform, the lab offers something more enduring: a replicable model for departments seeking to transition toward scalable, resilient, and secure digital services.

In a landscape where technology must serve both speed and responsibility, the IDC DevOps Lab quietly proves that the two can, in fact, coexist.



▲ Fig 12.1 **End-to-End DevOps Pipeline**

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Technology Update

Deterministic Verification for Android

A Practical Multi-Step Deterministic Verification Technique for Android Applications



Edited by **C. J. ANTONY**

Mobile applications often run in environments that are only partially trusted. While the server is secure, the client device is controlled by the user, making it possible for attackers to inspect, modify, or automate the application after gaining access to the APK file. Common security methods rely on static client identifiers, such as device IDs or installation tokens. These have a major weakness: they are static and do not change. If an attacker obtains the static ID, the client can be impersonated indefinitely.

Furthermore, existing solutions often use complex cryptographic protocols that increase computational costs and are difficult to integrate. The proposed solution is based on deterministic state progression. This means the server verifies the client based on how its state changes over time, rather than checking a single fixed value.

This is particularly relevant for large-scale mobile API ecosystems where lightweight verification and operational simplicity are critical.

Threat Model and Design Goals

The system assumes an attacker can inspect the application binary, monitor traffic, and automate requests, but lacks access to server-side logic. The goal is to significantly increase the attack effort rather than achieve absolute prevention.

The design prioritizes lightweight execution for minimal device impact, deterministic behavior combined with randomness, server-verifiable state progression, and low operational cost by eliminating complex key management.

Client-Side State and Progression

The mechanism relies on a client-maintained sequence position. This position is represented as a simple integer that advances after each successful interaction. To preserve continuity across application restarts, the client stores a minimal progression indicator in local storage.

This value does not represent identity, credentials, or any sensitive attribute. It only reflects the current position within the structured sequence. The stored value has no independent security significance. Even if an attacker gains access to it, the value provides no operational advantage. If it is erased, reset, or modified, the sequence alignment between client and server is disrupted, and validation fails naturally without requiring additional defensive logic.

This article presents a lightweight deterministic verification technique for Android applications that strengthens mobile API security without relying on heavy cryptographic exchanges. Instead of static client identifiers, the method generates dynamic verification values using the application's APK signature and a progressing sequence. The approach enables stateless server-side validation, resists replay attacks, and avoids complex key management while remaining computationally efficient through simple byte-level operations. Its scalability and ease of integration make it suitable for large-scale Android deployments.

This approach maintains operational continuity while keeping the persisted state lightweight and non-sensitive. The sequence progresses strictly forward. The client does not attempt to re-synchronize based on server error responses, preventing state manipulation through fake or replayed error conditions.

The Value Derivation Pipeline (Client)

Instead of transmitting a static identifier, the client derives a new verification value for each request using a deterministic multi-stage process.

Seed Generation

The process begins with a base seed derived from the application's APK signature hash. This binds the mechanism to a specific build. The seed remains local and is never transmitted.

Positional Extraction

A small segment of the seed is selected based on the current sequence position. As the position advances, different segments are used, ensuring variation across requests while remaining reproducible on the server.

Transformation and Obfuscation

The selected segment undergoes bit-level transformations, such as lightweight bit-level transformations, to alter its representation. Additional non-semantic characters are inserted into the transmitted string to make structural analysis and pattern observation more difficult. These characters are ignored during verification.

Integrity Marker

A checksum is computed from the transformed segment. This enables early rejection of corrupted or tampered values before deeper validation is performed.

Server-Side Reconstruction

The server operates in a stateless manner. Upon receiving a value, the server does not attempt decryption. Instead, it reconstructs the expected result using the same reproducible process.



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- **Parsing:** The encoded sequence position is extracted from the incoming message.
- **Seed Re-computation:** Using its stored copy of the application signature, the server regenerates the corresponding internal seed.
- **Simulation:** The server applies the identical extraction and transformation steps to derive the expected value.
- **Comparison:** The derived value is compared with the received value. An exact match is required.

Independent Validation

Because the server recomputes the seed on demand, it never needs to store client secrets. Each request is verified independently. If a request is valid, it is accepted; otherwise, it is rejected without revealing the specific reason, such as "wrong sequence" or "bad checksum."

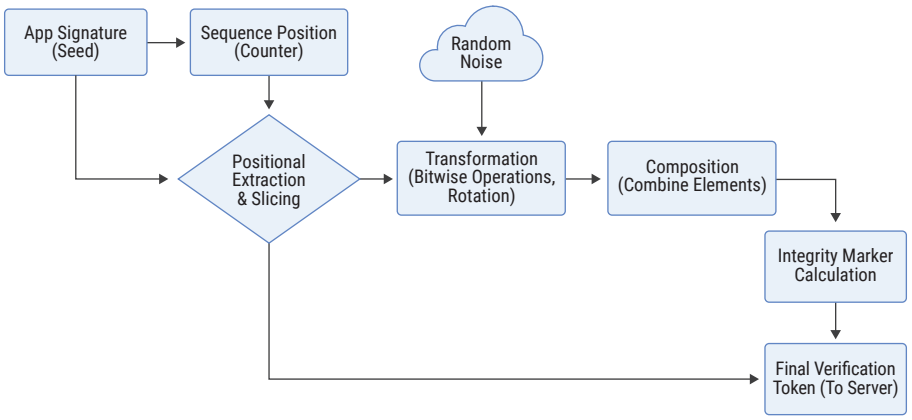
Security Analysis

The proposed mechanism derives its strength from asymmetric effort.

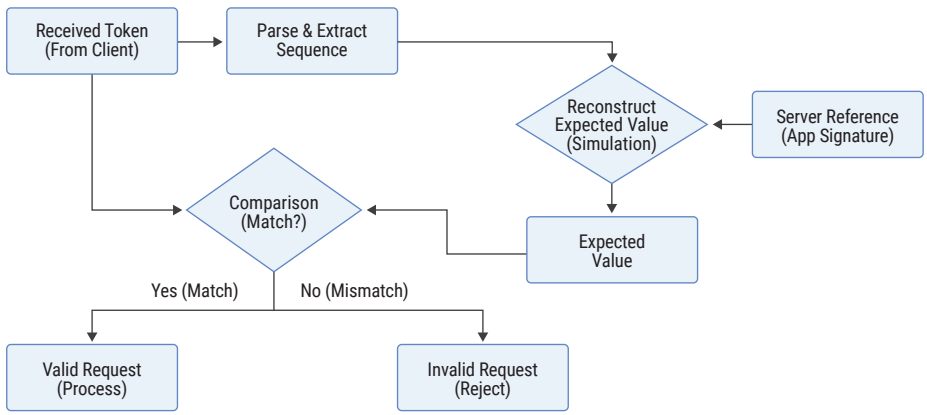
- **Client-Side Cost:** The computational cost is minimal. Operations involve simple byte transformations and execute quickly on standard devices.
- **Attack Effort:** Forging a valid request requires replicating the complete internal derivation pipeline. Simple replay attempts are ineffective because the sequence position advances with each interaction.
- **Cloning Resistance:** Possession of the application binary alone is insufficient. Without authoritative server-side reference data and deterministic alignment, generated values cannot be validated.
- **Uniform Failure Behaviour:** All validation failures produce indistinguishable outcomes. This prevents attackers from inferring internal logic through error-based probing.

Operational and Deployment Benefits

From an engineering standpoint, the approach is practical for large-scale deployments.



▲ Fig 11.1 **Client-side process**



▲ Fig 11.2 **Server-side reconstruction**

- **Constant Performance:** The verification logic consists of fixed-size byte operations and runs in constant time, O(1), per request. Performance does not degrade with user growth.
- **No Database Dependency:** Verification does not require per-user database lookups, reducing latency and server load.
- **Stateless Validation:** Each request is evaluated independently, simplifying horizontal scaling.
- **Offline Readiness:** The client can initialize and advance its progression state without immediate network access.
- **Integration Simplicity:** The logic integrates into standard application workflows without specialized permissions or background services.

▼ **Table : Key Differences Between the Proposed Deterministic Verification Technique and Traditional Approaches**

Feature	Static Identifiers (e.g., Device ID)	Heavy Cryptography (e.g., Client Certificates)	Proposed Deterministic Method
Client Identifier	Fixed, unchanging value	Private key	Dynamic, progresses with each request
Replay Protection	None (easily replayed)	High (via nonces/ timestamps)	Difficult due to continuously progressing verification values
Server State	Stateful (must store IDs)	Stateful (manages certificates/keys)	Stateless (reconstructs on demand)
Computational Cost	Very low	High (complex mathematical operations)	Low (bitwise operations)
Primary Weakness	Vulnerable to theft and replay	Complex to manage and deploy	Reverse engineering resistance depends on implementation hardening

Conclusion

This article presents a practical deterministic verification method for strengthening trust in Android client applications without relying on heavy cryptographic exchanges. By binding verification to the application build signature and a progressing internal sequence, the technique increases the effort required for impersonation and automated abuse. Its lightweight computation, stateless server validation, and ease of deployment make it suitable for high-scale mobile environments where performance and operational simplicity are critical.

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Technology Update

SIEM in Modern Cybersecurity Operations

Enhancing threat detection, operational visibility, and resilience in government digital ecosystems



Edited by **MOHAN DAS VISWAM**

In today's rapidly evolving cyber-threat landscape, government departments rely heavily on secure and uninterrupted digital systems to deliver public services, citizen-centric applications, and critical infrastructure operations. The increasing scale and sophistication of cyber threats necessitate a centralized and proactive approach to security monitoring and incident response.

Security Information and Event Management (SIEM) plays a pivotal role in addressing this need by enabling organizations to collect, correlate, and analyze log data from servers, endpoints, applications, and network devices across the IT ecosystem. By transforming raw event data into actionable security insights, SIEM provides a unified view of system activity and helps identify anomalous behaviour in real time.

Through event correlation and log standardization, SIEM solutions detect potential threats, generate prioritized alerts, and support timely incident response. They also facilitate forensic investigations, trend analysis, and regulatory compliance with national cybersecurity frameworks such as CERT-In, NIC, and AP SOC guidelines.

For government organizations responsible for sensitive data and critical public services, SIEM serves as a foundational capability for strengthening security posture, improving operational visibility, and ensuring resilience against emerging cyber risks.



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SIEM is evolving from a log management tool into an intelligent security backbone for modern digital systems. By combining centralized visibility, analytics, and AI-driven capabilities, it enables organizations to move from reactive defense to proactive security—making it indispensable for resilient, compliant, and future-ready cybersecurity operations, especially in complex government environments.

How SIEM Technology Works

SIEM solutions operate through a structured and continuous process of collecting, processing, and analyzing security data from across an organization's IT environment. This includes system logs, user activities, network traffic, endpoints, applications, and servers, enabling comprehensive visibility into security events.

The working of a SIEM system can be understood through the following key stages:

- **Data Collection:** SIEM platforms gather log and event data from multiple sources, including firewalls, intrusion detection systems, servers, databases, and cloud environments, ensuring broad coverage across the infrastructure.
- **Data Normalization and Aggregation:** Collected data is standardized into a consistent format, allowing events from different systems to be compared and analyzed collectively.
- **Event Correlation:** SIEM applies predefined rules, statistical models, and threat intelligence to correlate related events, helping identify patterns that may indicate malicious activity.
- **Threat Detection and Alerting:** Based on correlation and analysis, the system detects anomalies and generates prioritized alerts, enabling security teams to focus on high-risk incidents.
- **Response and Investigation:** SIEM supports incident response by providing contextual information, enabling faster investigation, containment, and remediation. Advanced platforms may also trigger automated responses.

This structured workflow allows SIEM to transform large volumes of raw data into actionable intelligence, enabling organizations to detect threats early, respond efficiently, and maintain continuous security monitoring.

Core Components of SIEM

A SIEM system is built on a set of integrated components that work together to provide end-to-end visibility, detection, and response capabilities across the IT environment. These components enable the system to process large volumes of data, identify threats, and support security operations effectively.

- **Log Data Management:** Forms the foundation of SIEM by collecting, storing, and managing log data from diverse sources. It ensures data integrity, normalization, and availability for analysis, auditing, and compliance.
- **Security Event Management (SEM):** Focuses on real-time monitoring and analysis of security events. By correlating live data from multiple sources, SEM enables rapid detection of suspicious activities and immediate alert generation.
- **Security Information Management (SIM):** Handles the storage and analysis of historical data, supporting incident investigation, trend analysis, and compliance reporting through dashboards and detailed logs.
- **Event Correlation and Analytics:** Combines data from various systems using rules, statistical models, and threat intelligence to identify patterns and uncover complex or hidden threats.
- **User and Entity Behavior Analytics (UEBA):** Uses machine learning to establish baseline behaviour for users and systems, helping detect anomalies such as insider threats or compromised accounts.
- **Threat Intelligence Integration:** Enhances detection capabilities by incorporating external

threat feeds, providing contextual information to identify known attack patterns and emerging risks.

- **Alerting and Incident Response:** Generates prioritized alerts based on detected threats and supports structured response workflows, including investigation, containment, and remediation. Advanced systems may enable automated responses.
- **Reporting, Audit, and Compliance:** Provides dashboards, reports, and audit trails required for regulatory compliance, while offering insights into security posture and operational trends.

AI-Driven Evolution of SIEM

As cyber threats grow in scale and complexity, traditional SIEM systems are evolving into intelligent, adaptive platforms powered by artificial intelligence (AI) and machine learning (ML). This transformation is enabling organizations to move beyond reactive monitoring toward predictive and automated security operations.

AI-driven SIEM solutions enhance threat detection by analyzing large volumes of real-time and historical data to identify patterns, anomalies, and emerging attack vectors with greater accuracy. By continuously learning from system behaviour, these platforms can detect subtle deviations that may indicate insider threats, compromised accounts, or previously unknown attacks.

Automation is another key advancement shaping modern SIEM capabilities. Integrated with orchestration frameworks, SIEM systems can trigger predefined responses, reducing manual intervention and enabling faster containment of security incidents. This not only improves response time but also minimizes the operational burden on security teams.

In addition, AI significantly improves alert prioritization and noise reduction. By providing contextual analysis and filtering false positives, it allows security analysts to focus on high-impact threats, thereby enhancing decision-making and operational efficiency.

The evolution of SIEM is also closely aligned with emerging cybersecurity frameworks and architectures. Integration with cloud environments, Zero Trust models, and Extended Detection and Response (XDR) platforms is expanding the scope of visibility across distributed and hybrid infrastructures. At the same time, the growing emphasis on data privacy and regulatory compliance is reinforcing the role of SIEM in governance and audit readiness.

Looking ahead, SIEM is expected to become more scalable, automated, and context-aware—serving not only as a monitoring tool but as a central intelligence layer within the cybersecurity ecosystem. This evolution will play a critical role in enabling organizations, particularly in the public sector, to strengthen resilience, ensure continuity of services, and stay ahead of increasingly sophisticated cyber threats.

Best Practices for SIEM Implementation

Effective SIEM deployment requires a strategic approach that aligns technology, processes, and people with the organization's security objectives. A well-implemented SIEM system not only enhances threat detection but also ensures long-term operational efficiency and scalability.

- **Define Clear Objectives:** Establish specific goals for SIEM implementation, such as threat detection, compliance, or incident response. Clearly defined use cases help prioritize efforts and guide system configuration as security maturity evolves.
- **Ensure Comprehensive Data Integration:** Integrate logs from critical sources, including firewalls, endpoints, identity systems, applications, and cloud environments. Comprehensive data coverage is essential for accurate threat detection and visibility.
- **Prioritize Critical Log Sources:** Begin with high-value systems such as Active Directory, network devices, and cloud platforms to ensure early visibility into sensitive and high-risk areas.
- **Enable Continuous Monitoring and Optimization:** Regularly review and update correlation rules, dashboards, and alerts to adapt to evolving threat landscapes. Continuous tuning helps maintain accuracy and relevance.
- **Leverage Automation and Threat Intelligence:** Incorporate automation and orchestration capabilities to streamline incident response. Regularly update threat intelligence feeds to enhance detection of emerging risks.
- **Strengthen Team Capability and Training:** Equip security operations teams with the necessary skills to interpret alerts, investigate incidents, and optimize SIEM performance. Ongoing training in areas such as cloud security and data analytics is essential.
- **Foster Cross-Team Collaboration:** Ensure coordination between IT, security, and compliance teams to improve communication, align priorities, and strengthen overall security posture.
- **Support Compliance and Audit Readiness:** Configure SIEM to meet regulatory requirements by enabling proper log retention, reporting, and audit trails, ensuring readiness for inspections and assessments.

Conclusion

In today's dynamic threat landscape, SIEM has become a core component of cybersecurity by delivering unified visibility, real-time detection, and actionable insights across complex environments. The integration of AI is further transforming SIEM into a more intelligent and adaptive platform, enabling faster threat identification, improved alert prioritization, and more efficient incident response.

As cyber threats continue to evolve, SIEM will play a critical role in strengthening organizational resilience, supporting compliance, and ensuring business continuity. Its continued advancement toward automation and predictive capabilities will enable security teams to respond more effectively while aligning security operations with broader organizational objectives.

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Appscape

Mobile technology has emerged as a primary tool for governments to serve their citizens. It has bypassed the need of traditional physical networks for communications and collaborations. It is also much more affordable and accessible, thus strengthening the nation through better citizen-government interaction. To further nourish this interactivity, NIC has created a repository of more than 730 mobile apps available through both the Android and iOS platforms. This issue of Appscape covers some of the more popular mobile apps launched recently. These apps belong to different sectors such as Administration, Development, Finance, Public Distribution, Health and Education.



mSainik

The mSainik App, also known as m-Sainik Kalyan, was launched by the Hon'ble Home Minister of Madhya Pradesh as part of the Directorate of Sainik Welfare, Madhya Pradesh, developed by the NIC MP State Centre. This app and the accompanying Sainik Kalyan Portal offer a range of beneficial features:

- Users can create detailed profiles to access services effectively.
- Provides detailed information about various welfare schemes available.
- Facilitates the management and organization of information within the app.
- Enables users to check their eligibility for specific schemes.
- Allows for the submission and approval of applications through the app.
- Provides beneficiaries with updates and notifications via SMS regarding their applications or schemes.

The app serves as a comprehensive platform catering to the needs of veterans and their families, offering convenience, accessibility, and streamlined access to various services and schemes provided by the Directorate of Sainik Welfare in Madhya Pradesh.

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School Safety App

The School Safety mobile app is a powerful solution to enhance school safety and disaster preparedness. Tailored to meet the unique needs of schools across the state, the app boasts a range of features designed to streamline the creation and management of Disaster Management Plans. Its key features are:

- **Data Collection and Entry:** Schools can input vital safety-related parameters such as emergency exits, fire safety equipment, evacuation plans, and infrastructure details.
- **Automated Disaster Management Plan Generation:** Based on the data provided, the app generates a comprehensive and customized DMP for each school, saving time and ensuring accuracy.
- **Progress Monitoring Dashboard:** A centralized dashboard offers real-time tracking of DMP generation and updates across all schools in the state, ensuring transparency and accountability.
- **User Accessibility:** App access is provided to school administrators and relevant officials, enabling them to review and update safety measures efficiently.
- **Centralized Data Repository:** It maintains a secure database of all school safety parameters, ensuring consistent disaster preparedness across the state.

By integrating these features, the app not only fosters a culture of safety in schools but also empowers institutions to be well-prepared.

Ajay Singh Chahal (sio-hp@nic.in)

ATHIDHI Kerala

ATHIDHI Keralais a multilingual Android application designed to streamline the registration and welfare of migrant workers in Kerala. Launched in April 2023, the app facilitates seamless onboarding of workers, employers, and contractors under the state's labour department initiatives.

- **Worker & Employer Registration:** Migrant workers, contractors, and employers can self-register using OTP-based authentication, uploading information such as educational, skill, and employment details.
- **Unique Identification:** Each registered migrant worker receives a unique ID to access various state welfare programs, including health insurance and social security schemes.
- **Multilingual Interface:** The app supports multiple languages to accommodate Kerala's diverse migrant workforce.
- **Notifications & Updates:** Workers receive timely alerts and updates related to welfare entitlements via the app's notification module.

ATHIDHI Kerala streamlines welfare delivery by centralizing migrant worker data, reducing duplication, and improving access to government schemes. Unique IDs and official registration enhance safety and accountability. The app also simplifies administration, helping contractors and officials track and manage registrations efficiently. It's a vital step toward empowering migrant workers and ensuring inclusive governance in Kerala's labour sector.

Dr. Suchitra Pyarelal (sio-ker@nic.in)

PMMVY Soft

The PMMVY Soft App was developed to support the implementation of the Pradhan Mantri Matru Vandana Yojana maternity benefit scheme launched by the Government of India. The app provides a digital platform for beneficiaries and frontline workers, ensuring efficient delivery of maternity benefits and improved service access.

- **Beneficiary Registration:** Eligible pregnant and lactating women can be registered through Anganwadi Workers and ASHAs by submitting required documents such as Aadhaar and maternity card.
- **Application Tracking:** Real-time updates on application status and payment disbursement ensure transparency.
- **Role-Based User Access:** Dedicated logins for AWWs, ASHAs, Supervisors, and ANMs for smooth navigation and management.
- **Secure Data Handling:** Advanced encryption ensures privacy and protection of user data.
- Multi-User Support: Enables coordinated work among different stakeholders for efficient beneficiary management.
- **Multilingual Support:** Available in multiple Indian languages to ensure inclusivity.

The scheme provides ₹5,000 for the first child and ₹6,000 for a second girl child, targeting women from disadvantaged backgrounds. The app enhances accessibility, transparency, and efficiency in delivering maternal welfare services across the country.

Timothy Dkhar (hog-womenchild@nic.in)

Rajasthan Social Pension

The Rajasthan Social Pension app supports the delivery of social security pension schemes implemented by the Social Justice and Empowerment Department (SJED), Government of Rajasthan. These schemes are designed to provide financial assistance to vulnerable sections of society, including the elderly, widows, and persons with disabilities, ensuring dignity and basic livelihood support.

The foundation of these initiatives lies in Article 41 of the Constitution of India, which directs the State to offer public assistance in cases of old age, sickness, disability, and other conditions of need, within its economic capacity. In alignment with this vision, the Government of India launched the National Social Assistance Programme (NSAP) in 1995 to establish a structured approach toward supporting the poor and disadvantaged.

The app serves as a digital platform to improve accessibility, transparency, and efficiency in pension-related services. It enables beneficiaries to access scheme information, track application status, and stay updated on payments. By digitizing these services, the Rajasthan Social Pension app ensures that welfare benefits reach the intended recipients in a timely and hassle-free manner.

Dr. P.Gayatri (sioraj@nic.in)

Thirukkoil

The Thirukkoil App is a unique digital platform that offers comprehensive information about the temples of Tamil Nadu, making it a valuable companion for devotees. Currently featuring 48 senior-grade temples, the app aims to gradually include more temples over time, creating a rich and expanding repository of spiritual heritage.

Blending history with technology, the app presents Thala Varalaru—the historical background of temples dating back to the 6th century CE—along with detailed insights into temple architecture, idols, sculptures, and paintings. It also provides essential information such as temple timings, rituals, and regularly updated calendars of daily and special events.

One of the standout features is the virtual tour, allowing devotees to experience the temple environment and worship digitally before visiting. The app also includes sacred texts like Thirumurai and Nalayira Divya Prabandham, available in readable Tamil verses along with audio recitations.

With features like live darshan, route maps, nearby temple suggestions, and contact details of temple authorities, Thirukkoil ensures a seamless, enriching, and spiritually immersive experience for devotees everywhere.

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SEVA SUVIDHA

SEVA SUVIDHA is the official mobile application designed for employees working in CSMCL retail liquor shops across Chhattisgarh. The app aims to simplify employee management, improve communication, and provide easy access to essential workplace services through a secure digital platform.

One of the key features of the app is Salary Management, which allows employees to view detailed monthly salary information, including earnings, deductions, gross pay, and net pay. The Leave Application feature enables users to apply for various types of leave directly through the app, ensuring a smooth and transparent approval process.

SEVA SUVIDHA also includes a Shop Complaint & Feedback system, where employees can view shop-related issues, submit complaints, and share feedback or important information with CSMCL management. This helps in maintaining accountability and improving operational efficiency.

Additionally, the app provides CSMCL Notifications, keeping employees informed about important updates and announcements in real time.

With its secure system and user-friendly interface, SEVA SUVIDHA ensures confidentiality, convenience, and efficient communication, making it an essential tool for employees across CSMCL retail outlets.

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India and Tanzania Strengthen Digital Public Infrastructure Cooperation

India and Tanzania placed strong emphasis on expanding cooperation in digital public infrastructure and technology-driven governance during the 5th session of the India–Tanzania Joint Trade Committee (JTC), held in Dar es Salaam on 29–30 April 2026. The discussions focused on collaboration in digital governance, real-time payment systems, digital identity services and e-commerce frameworks.

The meeting was co-chaired by Rajesh Agrawal, Commerce Secretary, Government of India, and Samuel William Shelukindo, Permanent Secretary in Tanzania's Ministry of Foreign Affairs and East African Cooperation. Both sides highlighted digital transformation as a key pillar for economic cooperation and public service delivery.

India's Digital Public Infrastructure model, particularly India Stack, featured prominently during the discussions. The two countries explored opportunities for collaboration in real-time payment systems, digital identity services and platforms such as DigiLocker. They also discussed strengthening partnerships in digital services and e-commerce regulation.

Officials noted that digital infrastructure could play an important role in strengthening governance, improving service delivery and enhancing administrative efficiency. Both sides identified technology-enabled public administration and data-driven decision-making as important areas for future cooperation.

In the healthcare sector, discussions focused on expanding telemedicine and digital health services to improve healthcare access in remote regions of Tanzania. In education, IIT Madras Zanzibar was highlighted as an emerging regional hub for science and technology education.



The meeting also reviewed cooperation in infrastructure, energy, agriculture and water management. India's development partnership currently includes more than US$1.1 billion in lines of credit supporting water infrastructure projects in Tanzania.

At the conclusion of the meeting, both countries reaffirmed their commitment to strengthening cooperation in digital public infrastructure, innovation and technology-enabled governance. The next session of the India–Tanzania Joint Trade Committee will be held in New Delhi on mutually agreed dates.

Source- Press Information Bureau

India Releases Updated RBSK 2.0 Guidelines for Digital Child Health Monitoring

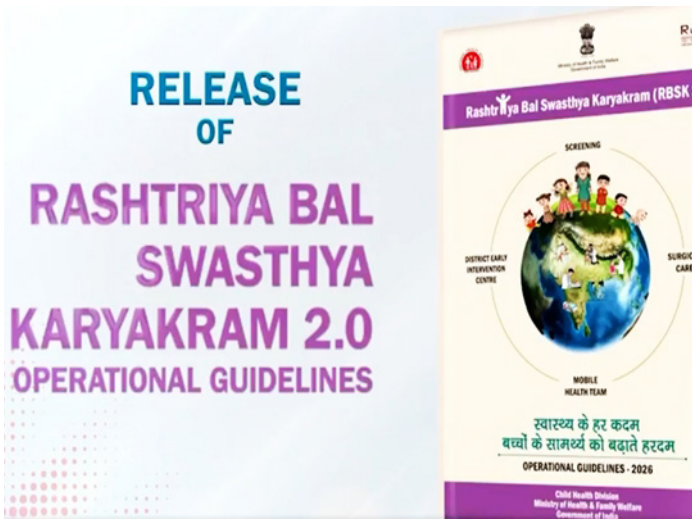
India's Ministry of Health and Family Welfare has released updated guidelines for Rashtriya Bal Swasthya Karyakram (RBSK) 2.0, strengthening the country's child health screening programme with greater focus on digital health systems, real-time monitoring and integrated healthcare delivery.

The revised framework expands the programme's 4D approach covering birth defects, diseases, deficiencies and developmental delays to also include non-communicable diseases, mental health and behavioural conditions among children and adolescents.

RBSK 2.0 will continue screenings through mobile health teams at Anganwadi centres and schools while strengthening referral systems and continuity of care through structured digital tracking mechanisms.

The updated guidelines introduce digital health cards, real-time data systems and integrated digital platforms to improve programme monitoring, transparency and evidence-based decision-making. The framework also emphasizes coordination among the health, education and women and child development sectors to strengthen early intervention and long-term child healthcare outcomes across the country.

Source- Press Information Bureau



India Launches Nationwide Cell Broadcast System for Disaster Alerts



India has launched a nationwide Cell Broadcast System (CBS) to deliver real-time, geo-targeted emergency alerts directly to mobile phones during disasters and public safety incidents. The platform is designed to strengthen early warning systems and improve emergency communication with citizens.

The system was launched by Jyotiraditya Scindia and developed by Centre for Development of Telematics (C-DOT) under the Department of Telecommunications in collaboration with the National Disaster Management Authority and the Ministry of Home Affairs.

Unlike conventional SMS alerts, CBS enables authorities to instantly broadcast warnings to all mobile devices within a defined geographic area, even during network congestion. The platform supports mobile technologies from 2G to 5G and allows multilingual, location-specific alerts with high-priority warning notifications.

The system has been integrated with the CAP-based Sachet disaster alert platform to support rapid and standardised dissemination of emergency warnings. A nationwide test conducted during the launch demonstrated the platform's ability to simultaneously reach users across regions and telecom networks.

Officials said the initiative marks an important step towards technology-driven disaster preparedness and strengthened public safety communication across the country.

Source- Press Information Bureau

UPI Completes 10 Years as India's Digital Payments Ecosystem Expands

India's Unified Payments Interface (UPI) has completed 10 years of operation, emerging as the backbone of the country's digital payments ecosystem and a major driver of financial inclusion. Launched in April 2016 by the National Payments Corporation of India under the oversight of the Reserve Bank of India, the platform has witnessed exponential growth in transaction volume and value.

According to the Ministry of Finance, UPI processed more than 24,162 crore transactions during 2025–26, with the total transaction value exceeding ₹314 lakh crore. The network, which began with 21 banks, has now expanded to 703 participating banks across the country.

UPI crossed 2,001 crore monthly transactions for the first time in August 2025 and reached 2,163 crore transactions in December 2025. Person-to-merchant payments accounted for nearly 63% of transaction volume, highlighting widespread adoption in everyday retail payments.

The platform has also gained international recognition, accounting for nearly 49% of global real-time payment transactions by volume in 2025, according to the International Monetary Fund. UPI-based payments are now accepted in countries including Singapore, France, Bhutan, Nepal, Sri Lanka, the United Arab Emirates and Mauritius.

Officials said the next phase of UPI development will focus on expanding adoption, strengthening system resilience and deepening international digital payment partnerships.



Source- Press Information Bureau

India Launches e-SafeHER to Create One Million Cyber Sakhis Across Rural Areas

India has launched e-SafeHER, a nationwide cyber security awareness programme aimed at enabling one million women across rural India to become digitally safe and confident by 2029. The initiative is being implemented by C-DAC Hyderabad under the Ministry of Electronics and Information Technology (MeitY) in partnership with Reliance Foundation.

Anchored under MeitY's Information Security Education and Awareness (ISEA) programme, e-SafeHER will strengthen cyber awareness among rural women using digital platforms for financial transactions, livelihoods and public services.

The programme will begin in Madhya Pradesh and Odisha through women's Self-Help Groups (SHGs) before expanding nationwide. C-DAC Hyderabad will develop multilingual training content, while Reliance Foundation will lead grassroots outreach through community-based learning models.

S Krishnan said the initiative supports the vision of a "Cyber Secure Bharat" by empowering women in remote regions with digital safety skills.

Isha Ambani said the programme aims to help rural women adopt safe online practices and confidently use digital technologies to improve their lives and livelihoods.



The initiative will use local language content, audio-visual modules and blended learning methods to improve cyber risk awareness and promote safe digital behaviour across rural communities.

Source- Press Information Bureau

India Uses AI to Preserve Pali and Heritage Languages

India is strengthening efforts to preserve heritage and minority languages through artificial intelligence, with a special focus on Pali, the ancient language of early Buddhist scriptures.

A workshop on Pali Language Preservation and Digital AI Model Development was held at the Faculty of Arts, University of Delhi, under the Digital India BHASHINI initiative of the Ministry of Electronics and Information Technology (MeitY). The programme was organised in collaboration with the Centre for Advanced Studies in Buddhist Studies.

The initiative aims to develop AI-powered digital language tools for Pali, considered a low-resource language in the field of artificial intelligence due to limited digital datasets and linguistic resources. Discussions focused on dataset creation, digitisation of manuscripts, audio collection, linguistic validation and community participation for building reliable AI models.

Amitabh Nag highlighted the role of artificial intelligence in improving access to knowledge systems and digital services in Indian languages. He stressed the importance of collaboration between academic institutions and language communities for developing high-quality datasets.

The workshop also showcased several BHASHINI language technology tools, including Anuvaad for text translation, Vaani Anuvaad for speech translation, Lekha Anuvaad for document translation and Chitra Anuvaad for multilingual video adaptation. The BHASHINI mobile application and BhashaDaan platform were also demonstrated to support real-time translation and community-driven language data contribution.



Officials said the initiative is part of broader efforts to build an inclusive multilingual AI ecosystem in India while preserving culturally significant and heritage languages through digital innovation.

Source- Press Information Bureau

India Expands SAMPANN Platform to Strengthen Digital Governance



India has expanded the reach of SAMPANN (System for Accounting and Management of Pension), its flagship digital pension management platform, with the State Government of Goa and the Cochin Port Authority adopting the system for pension and financial operations.

Developed under the Digital India Mission and managed by the Office of the Controller General of Communication Accounts (CGCA) under the Department of Telecommunications (DoT), SAMPANN digitises the complete pension lifecycle — from processing and sanctioning to accounting and disbursement.

The cloud-based platform offers direct benefit transfer, real-time tracking, online grievance redressal and a single-window interface, helping reduce paperwork, delays and administrative inefficiencies.

Officials said the adoption of SAMPANN by new public institutions highlights its scalability and potential for wider integration across government sectors. The platform currently facilitates monthly pension payouts of around ₹1,650 crore and has disbursed nearly ₹72,000 crore to date.

The government also directed the Department of Posts and DoT to explore wider adoption of SAMPANN for additional pensioners, reinforcing India's push towards transparent, citizen-centric and technology-driven governance.

Source- Press Information Bureau

India Introduces QR Code-Based ID System for Secure Vote Counting

India has introduced a QR code-based photo identification system to strengthen security and access control at vote counting centres during upcoming assembly elections and by-elections.

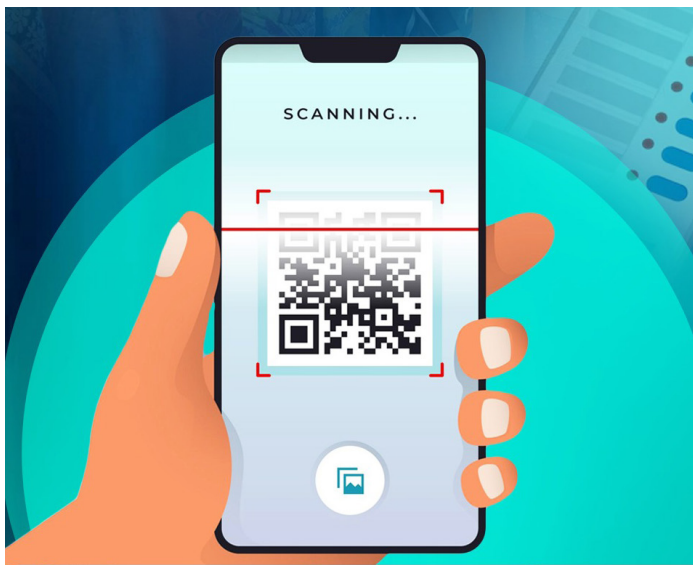
Developed within the ECINET platform by the Election Commission of India, the system will be used during vote counting scheduled for 4 May 2026 in Assam, Kerala, Tamil Nadu, West Bengal, Puducherry and select by-election constituencies.

Under the new three-tier security framework, officials will manually verify photo IDs at initial checkpoints, while access to counting halls will require QR code authentication of authorised identity cards. The measure aims to prevent unauthorised entry into sensitive counting areas.

QR code-enabled IDs will be issued to returning officers, counting staff, technical personnel, candidates and counting agents. Media personnel will continue to receive access through existing authorisation procedures, with dedicated media centres set up near counting venues.

Election authorities have directed officials across states to deploy trained staff and ensure smooth implementation of the system to maintain transparency, security and efficiency during the counting process.

Source- Press Information Bureau





Shri Tank Ram Verma, Hon'ble Minister for Revenue, Disaster Management, Rehabilitation, and Higher Education, Chhattisgarh launching Bhuiyan WhatsApp Chatbot

Chhattisgarh Launches Bhuiyan WhatsApp Chatbot and Auto-Diversion Facility for Land Services

The Government of Chhattisgarh has launched two major digital initiatives—the Bhuiyan WhatsApp Chatbot Service and the Auto-Diversion (Reclassification) Facility—to improve citizen access to revenue services and enhance transparency in land administration. The initiatives were inaugurated on February 9, 2026, by Shri Tank Ram Verma, Hon'ble Minister for Revenue, Disaster Management, Rehabilitation, and Higher Education, Chhattisgarh.

The Bhuiyan WhatsApp Chatbot allows citizens to access key revenue services and information directly through WhatsApp, reducing the need to visit government offices. By saving the number 7289056060 and sending a message, users can receive instant responses related to land and revenue matters.

Key services available through the chatbot include: 1. Land-related information; 2. Revenue court information; 3. Mobile number linking; 4. Aadhaar linking applications; 5. Applications for Kisan Credit Book; 6. Mutation applications; and 7. Other revenue-related citizen services. The initiative aims to make service delivery faster, simpler, and more accessible for citizens.

The government also launched a statewide Auto-Diversion facility, enabling citizens to apply online for land-use change without paperwork or office visits. The system automates the entire process—from land selection and fee calculation to online payment through e-Challan.

Applications are forwarded to the concerned authority for review, with a mandatory decision timeline of 15 days. If no decision is taken within this period, a Deemed Diversion Certificate is issued automatically, ensuring citizens are not affected by administrative delays. The service can be accessed through the official portal: https://revenue.cg.nic.in/citizenrequest/

Officials said the initiatives represent an important step toward strengthening digital governance and making revenue services more transparent, efficient, and citizen-friendly in the state.

– Satyesh Kumar Sharma, Chhattisgarh

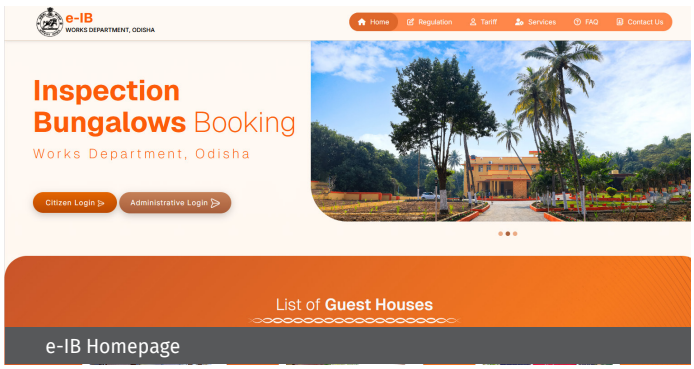
Odisha Launches e-IB Online Reservation System for Inspection Bungalows

The Works Department of the Government of Odisha has launched the e-IB Online Reservation System (https://eibworks.odisha.gov.in), marking a major step toward digital management of government guest houses and inspection bungalows. The portal was inaugurated by Shri Prithiviraj Harichandan, Minister for Works, at Lok Seva Bhawan in the presence of Shri Sanjay Singh, Principal Secretary, Works, along with officials from NIC and engineers from across the state.

The system has been introduced as a pilot project at three locations: 1. Bhubaneswar: PWD Inspection Bungalows, Satyanagar; 2. Puri: Nirman Niwas; and Konark: PWD Inspection Bungalows.

The portal replaces manual booking processes with a fully digital workflow, enabling users to register with a mobile number and email ID, submit booking requests online, and upload ID documents for verification. Requests are automatically routed to the concerned approving authority, ensuring transparency and time-bound processing. Reservations are managed under four categories: 1. State Guests & VIPs, 2. Government Officials on Duty, 3. Retired Government Servants and 4. General Public.

The platform also includes an online payment gateway and provides real-time dashboards and MIS reports to monitor room occupancy, revenue collection, and approvals. The system has been designed and hosted by NIC and is managed by the Chief Construction Engineer (R&B), Central Circle, Bhubaneswar.



e-IB Homepage

Officials said the e-IB portal will make the booking and management of inspection bungalows more transparent, efficient, and citizen-friendly, with plans to expand the system across the state after the pilot phase.

– Jayanta Kumar Mishra, Odisha

Himachal Pradesh Deputy Chief Minister Launches Him-Atithi Portal for Rest House Bookings

Shri Mukesh Agnihotri, Hon'ble Deputy Chief Minister of Himachal Pradesh, launched the Him-Atithi portal on January 20, 2026, enabling online booking of rest houses managed by the Jal Shakti Vibhag. The portal (https://himatithi.nic.in) provides a unified digital platform for booking government department rest houses.

Developed by the National Informatics Centre (NIC), Himachal Pradesh, the portal allows citizens and tourists to book rooms in 87 rest houses of the Jal Shakti Department located across the state. Users receive booking confirmations on their registered mobile numbers and can also check booking status or cancel reservations through the portal.

The General Administration Department and Public Works Department have already onboarded the platform, with the Jal Shakti Department becoming the third department to adopt the system. Officials said the initiative will improve transparency, ease of booking, and revenue generation for the government.

The portal is integrated with the e-Challan payment gateway of the Treasury & Accounts Department, ensuring that booking payments are deposited directly into the government treasury. It also enables departments to monitor occupancy and revenue through real-time dashboards.

Senior officials present at the launch included Dr. Abhishek Jain, IAS, Secretary; Er. Anju Sharma, Engineer-in-Chief; Er. Anil Mehta, Chief Engineer; and other officers from the Jal Shakti Department. Officials from NIC Himachal Pradesh, including Shri Ajay Singh Chahal, State Informatics Officer, were also present.



Hon'ble Deputy Chief Minister of Himachal Pradesh, Shri Mukesh Agnihotri, launching Him-Atithi Portal for Rest House bookings

During the event, the Deputy Chief Minister and the Secretary, Jal Shakti Department, also appreciated the e-Sanchalan/Works MIS software developed by NIC for departmental operations.

- Sandeep Sood, Himachal Pradesh

Rajasthan Holds State-Level Workshop on 'Pehchan' Civil Registration System

The Government of Rajasthan organized a state-level workshop on the Civil Registration System 'Pehchan' in Jaipur on January 15–16, 2026. The event, hosted by the Chief Registrar (Birth-Death) and the Directorate of Economics and Statistics, reviewed progress in registrations and introduced new features on the portal.

More than 550 participants, including district registrars, block officers, sub-registrars, and representatives from private hospitals across 41 districts, attended the two-day workshop.

Shri Vinesh Singhvi, Chief Registrar (Birth-Death), emphasized the importance of timely registrations and digital signing of certificates to ensure quick service delivery to citizens and urged officials to clear pending cases promptly.

Shri Amit Agarwal, Senior Technical Director, NIC, highlighted the success of the Pehchan system, noting that registration processes are now streamlined and the focus should shift toward data accuracy, security, and analytics. He also noted that Pehchan data is integrated with systems such as RGI-CRS, UIDAI, Jan Aadhaar, and other government schemes.

During the workshop, NIC officials presented updates on the portal, addressed technical issues, and demonstrated the Pehchan WhatsApp bot, which enables citizens to access registration services more easily.

Developed by NIC Rajasthan, Pehchan is the state's unified platform for birth, death, stillbirth, and marriage registrations, in use for over 12 years. The system currently serves 15,000+ registrars and sub-registrars and over 2,400 private hospitals, ensuring transparent and timely civil registration across the state.

– Informatics News Desk, NIC-HQ



Snapshots from state-level workshop on Pehchan



A snapshot of MedLeaPR workshop at Chandigarh Judicial Academy

NIC Haryana Holds Regional Workshop on MedLEaPR at Chandigarh Judicial Academy

NIC Haryana organized a one-day regional workshop on MedLEaPR (Medico-Legal Examination and Post-Mortem Reporting) at the Chandigarh Judicial Academy on January 14, 2026. The workshop brought together representatives from nine states and union territories—Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Rajasthan, Punjab, Haryana, Chandigarh, and Delhi.

The workshop was inaugurated by Justice Rajesh Bindal, Judge, Supreme Court of India, in the presence of Justice Sheel Nagu, Chief Justice of Punjab and Haryana High Court, along with other dignitaries and senior officials.

During the event, the MedLEaPR Compendium was unveiled and the MedLEaPR mobile application was soft-launched. Officials highlighted the platform's role in digitizing medico-legal examination and post-mortem reporting, improving standardization, transparency, and efficiency in the justice system.

Participants also shared implementation strategies, best practices, and challenges related to the adoption of the MedLEaPR system across states.

Officials emphasized that the platform, developed with technical support from NIC Haryana, will help strengthen medico-legal reporting and support faster and more reliable justice delivery.

– Deepak Sawant, Haryana

Odisha Launches District Geo-Portal to Strengthen Data-Driven Governance

The Odisha District Geo-Portal, a comprehensive GIS-based platform covering all 30 districts of the state, was launched on December 17, 2025, by Dr. Mukesh Mahaling, Hon'ble Minister for Electronics & IT, Health & Family Welfare, and Parliamentary Affairs. The launch took place during the District Informatics Officers (DIO) Conference in Bhubaneswar.

The portal integrates multiple spatial and non-spatial datasets, including administrative boundaries, natural resources, communication networks, agricultural assets, and sector-specific data. Designed as a single access point for district-level geospatial information, the platform aims to support planners and administrators in data-driven decision-making, planning, and monitoring.

Speaking at the event, Dr. Mahaling highlighted the growing role of geospatial technology in governance and its potential to enhance transparency, efficiency, and policy formulation.

Senior officials including Dr. Pradeep Kumar Rout, Special Secretary, Electronics & IT Department and CEO, OCAC, and Dr. Ashok Kumar Hota, Deputy Director General & State Informatics Officer, NIC Odisha, were present along with officers from NIC's state and district units.



Dr. Mukesh Mahaling, Hon'ble Minister for Electronics & IT, Odisha launching Odisha Districts Geo-Portal on 17th December 2025

Officials said the Geo-Portal marks an important step toward leveraging GIS technology to strengthen governance and public service delivery in Odisha.

– Dr. AK Hota, Odisha



Hon'ble Chief Minister of Madhya Pradesh, Dr. Mohan Yadav, launching e-Cabinet System

Hon'ble Chief Minister of Madhya Pradesh Launches e-Cabinet System

The Hon'ble Chief Minister of Madhya Pradesh, Dr. Mohan Yadav, formally launched the e-Cabinet system, marking a significant milestone in the state's journey toward digital governance and paperless administration. The launch took place in the presence of the Hon'ble Deputy Chief Minister and other Hon'ble Cabinet Ministers.

Speaking on the occasion, Chief Secretary Shri Anurag Jain informed that the upcoming two to three Cabinet meetings will be conducted in hybrid mode, combining physical and digital participation. Thereafter, Cabinet meetings are planned to be held fully online through the e-Cabinet platform, enabling faster and more efficient decision-making.

The e-Cabinet system is designed to digitize the entire Cabinet meeting process, including agenda circulation, note sharing, document access, and decision recording. The platform will help reduce paperwork, improve coordination among departments, and ensure secure and timely access to official documents for ministers.

During the event, Shri Amit Jain, Senior Technical Director, National Informatics Centre (NIC), presented a detailed demonstration of the e-Cabinet system before the Council of Ministers. The presentation highlighted the platform's features, workflow, and benefits for streamlined governance. The session was held in the presence of Shri Kamlesh Joshi, DDG & State Informatics Officer (SIO), NIC Madhya Pradesh, and Shri Manish Malviya, Scientist-D, NIC.

Officials noted that the implementation of the e-Cabinet system will significantly enhance efficiency, transparency, and speed in government decision-making, while supporting the broader goal of digital transformation in the administrative processes of the Government of Madhya Pradesh.

– Sushma Mishra, Madhya Pradesh

Hon'ble Chief Minister of Uttarakhand Launches Six Online Revenue Applications

In a major step toward digital governance, the Hon'ble Chief Minister of Uttarakhand, Shri Pushkar Singh Dhami, launched six citizen-centric online applications of the Revenue Council, Uttarakhand. The applications, developed by the National Informatics Centre (NIC), Uttarakhand, aim to provide key revenue services to citizens online in a transparent and time-bound manner.

The launch took place in the presence of the Chief Secretary of Uttarakhand, senior officials of the Revenue Council, senior officers of NIC, and representatives from ITDA and CERT-In. District Magistrates, Divisional Commissioners, and officials from various tehsils across the state also joined the programme through video conferencing from district headquarters.

The newly launched digital platforms will enable citizens to access services such as land records, cadastral maps, land-share information, land-use permissions, agricultural loan processing, and revenue recovery management online. These applications are designed to simplify procedures, reduce the need for physical visits to government offices, and improve efficiency in revenue administration.



Hon'ble Chief Minister of Uttarakhand, Shri Pushkar Singh Dhami, launching six citizen-centric online applications of the Revenue Council, Uttarakhand

Officials noted that the initiative will strengthen transparent, citizen-friendly, and technology-driven governance, while significantly improving the delivery of revenue services across the state.

– Chanchal Goyal, Uttarakhand



NIC Odisha's DEPMOS Recognised at National Digital Transformation Summit

NIC Odisha has received the "Digital Initiative for Ensuring Rural Connectivity and Digital Services Award" for its DEPMOS project at the 6th Digital Transformation Summit and Awards in New Delhi.

Developed for the MSME Department, DEPMOS quietly solves a problem that often slows small businesses — paperwork, delays, and long processes. By bringing services like registration, inspections, and rate contract management online, the platform has made government support faster, more transparent, and more accessible for MSMEs across Odisha, especially in rural areas.

The prestigious award was received by Mohammed Mojibullah Khan, Technical Director, Sudhansu Kumar Mahapatra, Scientist-C, NIC Odisha, and Sanjay Kumar Mishra, Director, Export Promotion & Marketing (EP&M), Odisha.

The recognition reflects how technology, when designed with simplicity and purpose, can make governance feel less distant for small entrepreneurs trying to grow.



NIC Nuapada Officer Felicitated for Excellence in Election Management

Shri Vinay Kumar Tiwari, District Informatics Officer (DIO), NIC Nuapada, was felicitated under the "Best Election Management" category during the 16th National Voters' Day–2026 celebrations held at the State Convention Centre, Bhubaneswar.

The honour was conferred by Shri R. S. Gopalan, IAS, Chief Electoral Officer, Odisha, and Shri Madhusudan Padhi, IAS, State Election Commissioner, Odisha, for Shri Tiwari's contribution to the successful conduct of the Nuapada Assembly Constituency Bye-Election.

As DIO and Nodal Officer, Shri Tiwari played a key role in strengthening the technical and cybersecurity framework of the election process. His coordination with the Election Commission of India and effective management of critical election applications helped ensure smooth, transparent, and efficient election operations.

He was also awarded a Certificate of Appreciation by the Office of the Chief Electoral Officer, Odisha, for his dedicated service and commitment to technology-driven election management.

With Gratitude and Respect

The strength of a publication lies not only in the news and features it carries, but also in the wisdom and commitment of those who shape its editorial vision behind the scenes.







As our esteemed editorial advisors Smt. Seemantinee Sengupta, DDG & State Coordinator (Sikkim), Shri Ajay Singh Chahal, DDG & State Informatics Officer (Himachal Pradesh), and Dr. Suchitra Pyarelal, DDG & State Informatics Officer (Kerala & Lakshadweep) mark their superannuation from service, we place on record our deep appreciation for their invaluable guidance and contributions to Informatics. Their insight, sincerity, and thoughtful perspective have significantly enriched the publication and strengthened its place within the e-Governance ecosystem. Furthermore, their visionary suggestions, editorial excellence, and unwavering support have contributed immensely to the development of informative and impactful content.

Although editorial contributions often remain unseen by the public eye, they are nonetheless critical to building the credibility, quality, and robust character of any publication. Their association with Informatics will always be remembered with honour, respect, and deep gratitude.

-Editor-in-Chief, Informatics