

Nagaland State

Moving towards a Digitized Era

Edited by KAVITA BARKAKOTY

Nagaland, a land shrouded in enigma, home to a vibrant culture guarded zealously by its people – from dancers to warriors, from head-hunters to serene landscapes of mountains, valleys, and forests. Yet, beyond its mysterious aura, Nagaland has evolved significantly over the years. Since its inception as the sixteenth state of the Indian Union on December 1, 1963,



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Since its inception in the year 1989, NIC Nagaland has been playing a pivotal role in the Government of Nagaland in promoting ICT Infrastructure and e-Governance Applications for providing efficient and transparent government services through e-Governance. Its Computer Communication Network NICNET and NKN (National Knowledge Network) at the State Centre and District Centres have been providing Internet connections to all the Departments of the Government as well as the District Headquarters and many Directorates and other offices throughout the state enabling them for efficient communication and dissemination of Information among the stakeholders of the Government.



it has emerged as a globally recognized tourist destination. Spanning approximately 16,579 square kilometers, Nagaland is known for its rugged terrain, dominated by hills and rivers

that carve through the landscape, defining its geographical essence.

The inception of the NIC in 1989 through a memorandum of understanding between the Government of India and Nagaland marked a pivotal moment. NIC's establishment in Kohima, the state capital, as the first district-cum-state center, and its subsequent expansion to all 16 districts, notably transformed the landscape of e-governance services in the state.

Presently, 11 districts have operational NIC District Units, with plans underway to establish the remaining 5, highlighting the indispensable role of NIC in steering the state's Information Technology and digital services landscape.

ICT Initiatives in Nagaland

eOffice

<https://eOffice.nagaland.gov.in>

eOffice has been officially launched by the Hon'ble Chief Minister of Nagaland, Shri Neiphiu Rio, during the 77th Independence Day Celebration at Nagaland Civil Secretariat Plaza in Kohima on August 15, 2023. Since then, it has been working in the Nagaland Civil Secretariat, covering 5 departments.

This platform has streamlined government operations by simplifying document management and fostering efficient collaboration processes.

Vahan 4.0

<https://parivahan.gov.in>

Launched in 2018, this online application for vehicle registration and issuance of Registration Certificates in Nagaland. To date, it has registered a total of 4,28,473 vehicles, generating revenue of Rs. 12,66,28,12,035.

Sarathi 4.0

<https://parivahan.gov.in>

Introduced in 2018 alongside Vahan, this online platform for Driving License services has been effectively implemented in Nagaland. As of now, it has issued 2,84,487 Driving Licenses, collecting revenue of Rs. 14.13 Crs.

iRAD/eDAR

The Integrated Road Accident Database / e-Detailed Accident Report is a mobile/web application initiated by MoRTH and funded by the World Bank, executed by NICS. It involves stakeholders such as Police, Transport, Highways/PWDs, and Medical entities to gather accident-related data for analysis. This data-driven approach aims to identify accident-prone areas and causes, aiding authorities in devising strategies to reduce accidents and improve the country's Road Safety Policy. This nationwide project began in 2020 and in Nagaland, it went live successfully on April 7, 2022. The statistics highlight the accident scenario in Nagaland, offering valuable insights for proactive interventions.

Elections

NIC Nagaland plays a crucial role as the IT Nodal Officer for the Nagaland Legislative Assembly and Lok Sabha Elections, held every five years, including Bye-Elections. Tasked by the Election Commission of India, NIC oversees critical responsibilities such as randomizing Polling Personnel for Polling Officials. The Election Department consistently acknowledges NIC's contributions with appreciation letters following each election cycle.

ServicePlus Framework

NIC Nagaland utilizes the ServicePlus meta-data based e-Service delivery framework employing LowCode-NoCode (LCNC) architecture to create various applications for the state:

ePass: During the Covid-19 pandemic, the ePass application was launched to issue permits for vehicular and people movement in Nagaland. With nationwide lockdowns causing people to be stranded since March 24, 2020, the Nagaland Government sought the ePass Application from NIC to facilitate entry permits. The application was reviewed by the dedicated team at the Chief Secretary's Office and Empowered Committee

Team. After gathering feedback from stakeholders between May 6-8, 2020, the ePass was made available to citizens on May 8, 2020, at 12 Noon.

Craftsmen Training Scheme Stipend (CTSS): To digitize the State Council of Vocational Training (SCVT) Stipend for trainees under the Employment, Skill Development & Entrepreneurship Department, the CTSS was developed on the ServicePlus Platform by NIC Nagaland. It integrates Aadhaar & PFMS, offers mobile app configuration for UMANG integration, and facilitates online applications for the Scheme by beneficiaries or institutes' Data Entry Operators. The department has signed a MoU with NIC for Aadhaar-based DBT integration to authenticate beneficiaries and eliminate duplicates. After User Acceptance Testing (UAT) completed on April 11, 2023, the service is set to move to production after successful Aadhaar integration.

eKMC Service: Using ServicePlus, two applications - Utility Booking Services and Public Grievances and Redressal - were developed for the Kohima Municipal Council. Inaugurated on March 30, 2022, by Dr. Neikiesalie Kire, Advisor, Urban Development & Municipal Affairs, these services allow citizens to book services like Cesspool Vehicle, Excavators, and Trucks managed by KMC. The system includes features such as SMS notifications, e-payment with refund mechanisms, enhancing accessibility and convenience for citizens.

Immigration, Visa, Foreigners' Registration & Tracking (IVFRT)

Operational since 2014 in Nagaland, the IVFRT serves the Foreigner's Registration Offices at District Headquarters. It manages C-Form, S-Form, and eFRRO Services. Recently, new modules - District Police Module & Look-out Circular Information System - were introduced. NIC-Nagaland conducted online state-level training sessions for stakeholders of these modules in August, October, and November 2023. Technical support for accessing these hosted modules on Layer 2 Network is facilitated by NIC-Nagaland.

NIC Nagaland's contribution to the technological architecture of our state has been very important and it has laid the foundation for a robust and integrated digital infrastructure. NIC has provided last-mile network connectivity and videoconferencing facilities in 10 district HQs and is the backbone of the network infrastructure for internet services to the Government of Nagaland. It facilitates provision of e-mail and website hosting services, and is responsible for managing critical welfare services and flagship programs in Nagaland through the National Level Software Projects such as MDM-ARMS, TPDS, HAPIS, RCH, MGNREGA management, PMAY(G), NSAP, among others.

The State Government has also developed an online GPF statement system and is implementing an Aadhaar-based biometric attendance system in the State Civil Secretariat and Directorates to enhance efficiency and security in attendance management. In all these and other IT enabled initiatives including the implementation of SPARROW, Data Centre management, cyber security and the pilot phase of e-office in the Nagaland Civil Secretariat, NIC has been playing significant roles to achieve the objectives of the initiatives.

NIC Nagaland has provided seamless delivery of government services to both the State Government and the public. I commend NIC Nagaland for its invaluable contributions to the State's progress and look forward to continued support as we navigate the challenges to streamlined government operations, promoted transparency, accountability, enhanced citizen engagement and opportunities of the digital era.



J. Alam IAS

Chief Secretary
Government of Nagaland

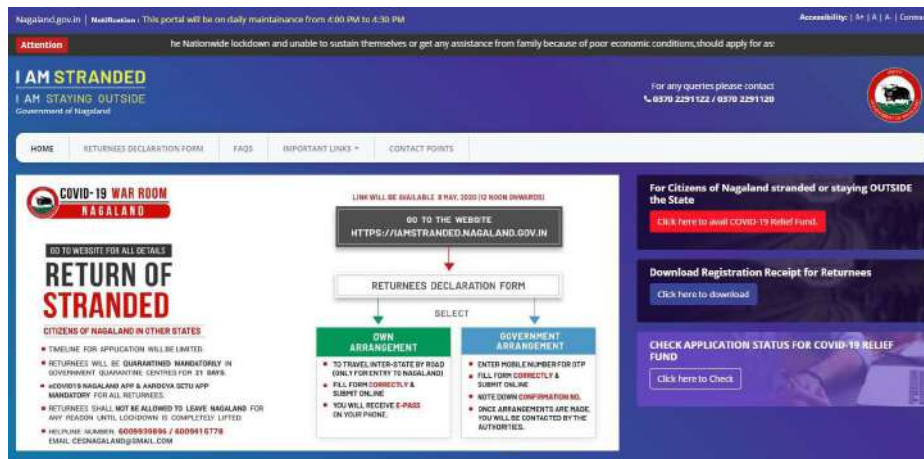
▼ Fig 3.1: Hon'ble Chief Minister of Nagaland officially launching eOffice at Nagaland Civil Secretariat Plaza Kohima on 15th August 2023



eCourts

eCourts, a nationwide initiative by the Department of Justice, Ministry of Law and Justice, Government of India, aligns with the "National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary-2005."

In Nagaland, this project has been effectively implemented across all 11 districts,



▲ Fig 3.2: Nagaland ePass web application homepage

encompassing 26 courts, and the Gauhati High Court Kohima Bench with 3 courts, ensuring smooth functionality.

As of now, the status of cases is as follows:

- Pending cases, including both Civil and Criminal: 2,834
- Disposed cases, encompassing both Civil and Criminal: 3,934

Aadhaar enabled Biometric Attendance System (AeBAS) (attendance.gov.in)

AeBAS is a system extensively utilized by State Government employees in Nagaland, operating at both state and district levels. Currently, 6 departments are registered within the system, comprising a total of 9,332 registered employees. This platform facilitates the seamless recording

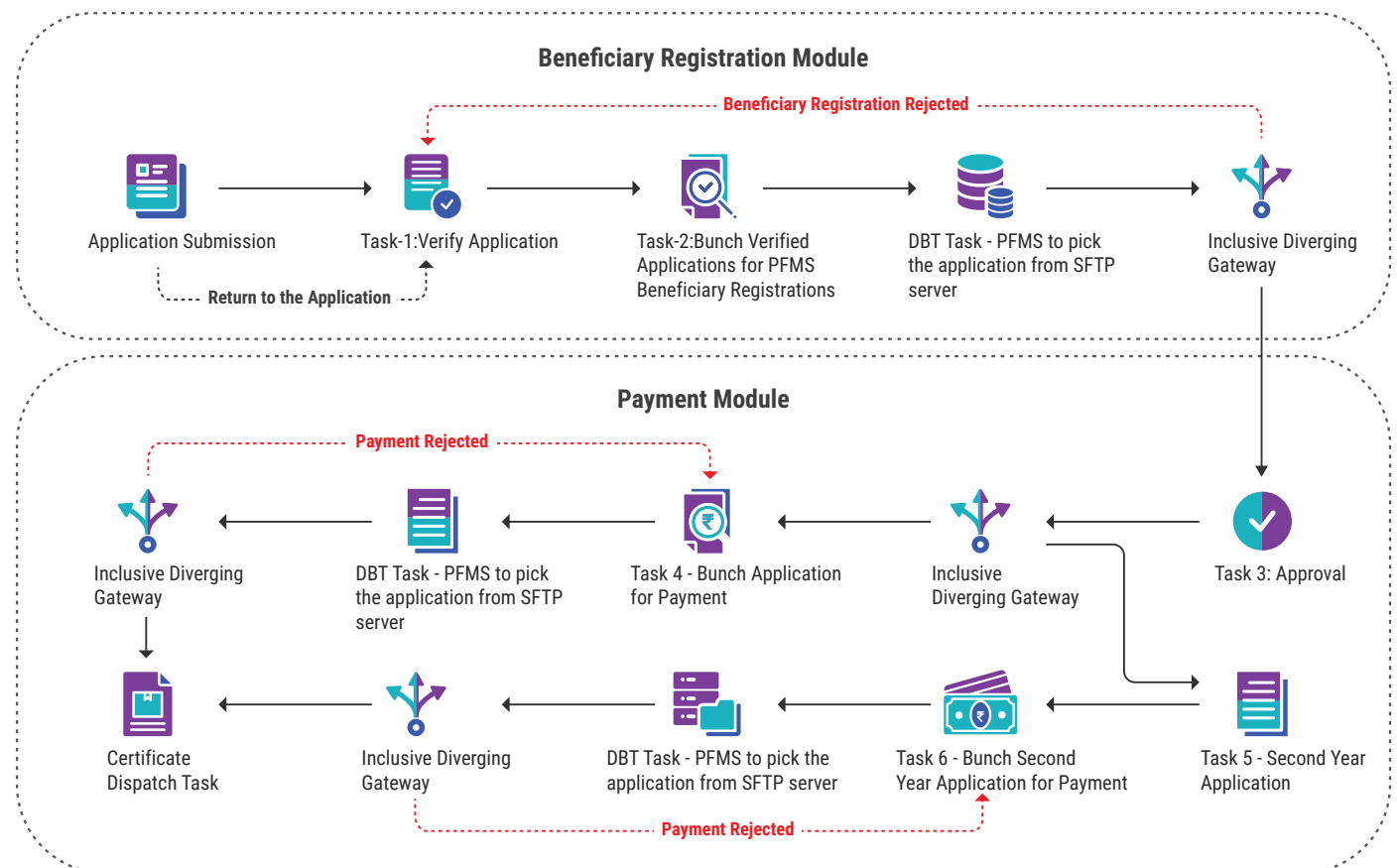
of daily attendance for government personnel, ensuring efficient and streamlined monitoring across various government departments.

CONFONET/eDaakhil Portal

In Nagaland, the Consumer Forum has been established in all 8 districts, dedicated to safeguarding citizen rights. Additionally, the eDaakhil portal, designed for consumers to lodge complaints and manage them effectively, was successfully launched on December 2, 2021. This platform marks a significant step towards enhancing consumer protection measures, offering citizens an accessible and efficient avenue to address their grievances.

National e-Vidhan Application (NeVA)

NIC Nagaland along with the Ministry of Parliamentary Affairs organized training on NeVA application during the year 2018 for the Nagaland Assembly Secretariat and has successfully implemented it in the state. NIC Nagaland along with the Secretary, Assembly Secretariat, Government of Nagaland, received with an appreciation certificate from Shri Arjun Meghwal, Hon'ble Union Minister of State (I/C) for Law & Justice, Parliamentary Affairs and Culture, Government of India during the New Delhi Workshop organized for successful implementation of NeVA in the State in May 2023.



▲ Fig 3.3 CTSS Application Workflow

SPARROW

SPARROW (Smart Performance Appraisal Report Recording Online Window) provides an integrated platform for AIS officers to file their Annual Performance Appraisal Reports (APAR) seamlessly.

eTPDS

<https://fcs.nagaland.gov.in>

eTPDS was introduced in Nagaland in 2018 under the National Food Security Act (NFSA). This initiative has significantly improved the efficiency and transparency of the Food and Civil Supplies Department in distributing food grains to PDS beneficiaries through Fair Price Shops. Currently, there are 3,29,981 Ration Card Holders and a network of 1817 Fair Price Shops operating within the system.

TaxSoft

<https://nagalandtax.nic.in>

TaxSoft was originally developed by NIC Karnataka and customized to suit the specific needs of Nagaland. It was implemented in the state to enhance the efficiency of Value Added Tax (VAT) administration. This customization aims to create a citizen-centric approach and establish service-oriented processes for better tax management within the region.

TreasuryNET Application

The TreasuryNET Application, initiated by the Finance Department of the Nagaland Government, aims to revolutionize financial and treasury management for the state's overall prosperity. Its objectives include effective budget oversight, real-time decision support, and in-depth analysis of revenue and expenditure trends.

NIC Nagaland, in collaboration with NIC Manipur, customized and implemented the TreasuryNET Application, previously used in Manipur, tailoring it to suit Nagaland's similar treasury systems. The project commenced with the pilot site at the Central Treasury, Kohima, launched on May 22, 2015, followed by a phased implementation across other Treasuries.

Initially, the project focused on establishing a web-based online Treasury software for bill processing, receipt management, and accounts compilation in all Nagaland Treasuries/Sub-Treasuries. It utilized isolated/distributed servers, connecting through Nagaland Government's State Wide Area Network (SWAN), NIC LAN, or WiMaX.

Data from these distributed servers is manually uploaded in CSV format to the TreasuryNET Central server located at the NIC Mini Data Centre, Kohima. However, challenges arose in real-time transaction monitoring due to delayed uploads from remote Treasuries. Compatibility issues with newer web-server and OS versions, difficulties in updating the application, and resolving vulnerability issues related to the outdated PHP 4.3.4 version prompted the development of a new Centralized TreasuryNET Application.

The upgraded application, utilizing modern software technology stack (Python 3.10, Django



▲ Fig 3.4: Smt. T. Lanusenla Longkumer, Administrator, KMC, Shri Lanusungkum Aier, SIO, NIC Nagaland, Dr. Neikiesalie Kire, Hon'ble Advisor, Urban Development & Municipal Affairs, Shri K. Theunuo, Chief Executive Officer, KSCDL, Shri Thejewellie Gregory- DC Kohima and Shri J. G Lorin, Scientist-F & DIO, NIC Kohima during launch of eKMC services at Kohima Municipal Council Office on 30th March 2022



▲ Fig 3.5: NIC Nagaland along with the Ministry of Parliamentary Affairs organized training on NeVA application for the Assembly Secretariat during the year 2018



▲ Fig 3.6: Launch of eDaakhil Portal on December 2, 2021, led by Shri Pukhavi Sumi, Advisor for Food and Civil Supplies, Legal Metrology, and Consumer Protection, accompanied by department officials

Framework 4.2, Bootstrap 4.0, PostgreSQL 14.0) on Linux Ubuntu 22 server, underwent a security audit for safe hosting, enabling access to the TreasuryNET Application from anywhere via the Internet. All 23 Treasuries have transitioned to the new Centralized TreasuryNET System, offering a real-time statewide view. The system comprises modules for Billing Processing, Receipt/Challan, Compilation, Reporting, Monitoring, Dashboard, and Pension Bill Generation. Sub-modules facilitate data exchange with external systems like Accountant General Voucher Level Computerization System (AG-VLCS), SBI CMP, and PFMS, ensuring tight integration. Moreover, a Budget Management System was developed

for seamless integration with TreasuryNET, comprising Budget Placement, DDO-Wise Sub-Allocation, and Treasury Directorate Budget Sub-Allocation Verification modules.

The Department of Treasuries and Accounts has established IT Cells, deploying technical officers for operational support and further system enhancement. This computerization has alleviated pressure on Treasuries, enabling faster bill processing and accurate monthly accounts compilation within the 1st week of the following month. It has enhanced transparency in bill processing and record tracking for payments and receipts by the Finance Department, Nagaland.



▲ Fig 3.7: Certificate of Appreciation received by the NEVA team

Online General Provident Fund System

The Online General Provident Fund (GPF) System, managed by the Office of the Principal Accountant General (Pr. AG), Kohima, maintains records for GPF account holders among Nagaland State Government employees from Grade-C and above. In the conventional manual system, the Pr. AG office conducts monthly updates based on debit and credit vouchers received from the Treasury office. Annual GPF statements were manually collected by department nodal officers from the Pr. AG office in July each year, which sometimes led to issues like non-receipt, losses, and fraudulent withdrawals.

To address these issues, following a directive from the Office of the Comptroller and Auditor General of India, the Pr. AG Office explored transitioning to issuing GPF statements in

electronic mode. This initiative aimed to eliminate delays, non-receipt, and enhance security, offering a secure online platform accessible via the internet and smartphones. NIC Nagaland, with support from NIC Manipur, undertook the project's implementation, launching it on July 31, 2017. Since then, NIC Nagaland has provided technical support for the project.

The new online GPF application was developed and migrated to an open-source platform (PHP 7.4, Maria DB 10.3, Python 3.8.1, NGINX 1.18), clearing a security audit in February 17, 2022. An API integration with Digilocker was developed, allowing subscribers to access and download GPF statements through the Digilocker mobile app.

Key Features of the System Include:

- Role-based user access for different stakeholders (Subscribers, DDOs, Treasury Officers)

- SMS facility for instant updates on GPF deposits/withdrawals to account holders
- Enhanced security features using two-factor authentication (2-FA) system, involving User ID, PIN, Captcha, and OTP for system access
- QR code authentication on the annual GPF statement to verify account details, downloadable through an exclusive QR code reader from the AG website

ICT Infrastructure and Services

NKN/NICNET

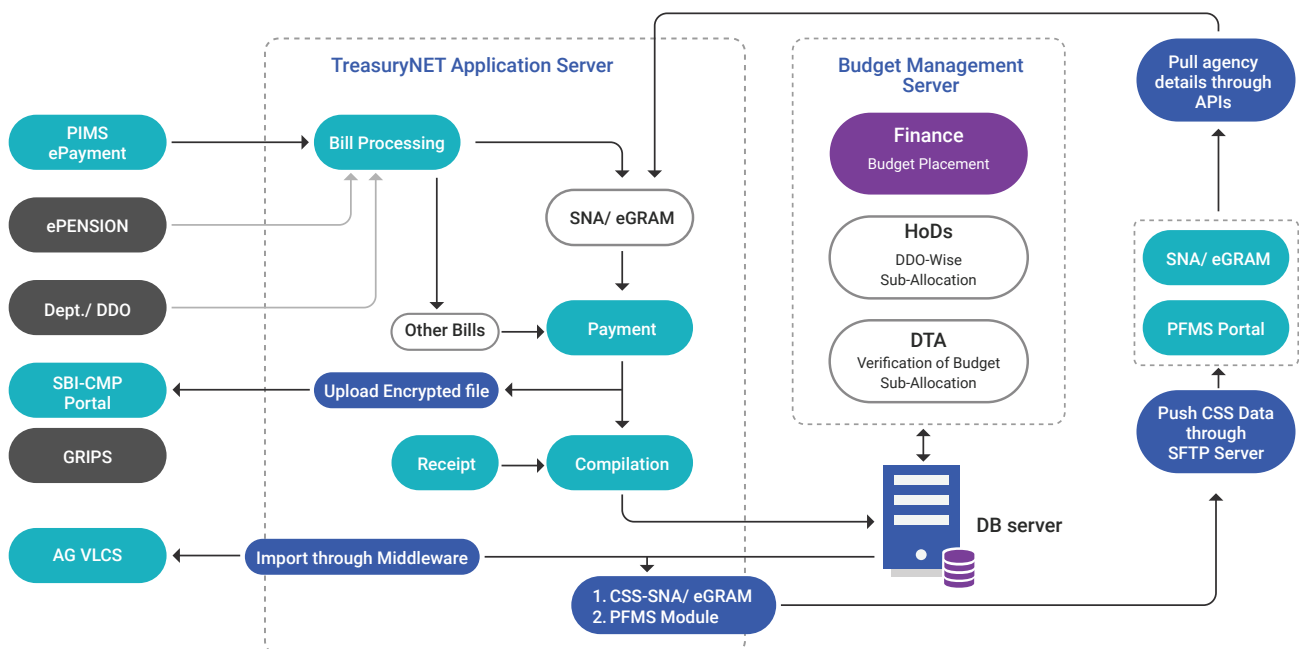
NIC Nagaland's ICT infrastructure and services are bolstered by two high-speed backbone links: a 10 Gbps connection via PGCIL and a 2.5 Gbps connection through BSNL at the State Centre. This robust network extends with 34/100Mbps links to all 11 districts, ensuring connectivity for user departments—a crucial last-mile connectivity aspect. Moreover, the NLDC and SWAN are seamlessly integrated through NKN.

The State Centre and District Units boast a robust Video Conferencing (VC) infrastructure, facilitating all government virtual and web meetings within dedicated VC studios. These studios, strategically established in key locations such as the CM's official residence, Raj Bhavan, CEO's office, CS's official residence, and DGP's office, are fully supported by NIC, ensuring efficient and effective communication across various government departments.

Web Hosting Services

NIC Nagaland offers comprehensive web hosting services across the state through various platforms:

▼ Fig 3.8 TreasuryNET Application Architecture



Mini Data Centre, Kohima: Equipped with Rack Servers and Blade Servers, this facility hosts several applications like Online GPF application, Central Institutes of Horticulture, Medziphema Website, LaPaM-Land Patta Management System, and co-locates servers for TreasuryNET Application and PFMS SFTP Server.

MeghRaj Cloud Service: NIC Nagaland manages website hosting through specific cloud accounts (CU-NL02 and CU-NL03) for seven Central Government Organisations Websites and four Nagaland State Department websites.

S3WaaS: This platform hosts a total of 25 websites, including those for District Administration, District Courts, and the NIC Nagaland Website.

Moreover, NIC Nagaland extends support for:

- Application and Website Security Audit conducted by the Centre of Excellence for Application Security, NIC Assam.
- Domain Name Registration and Renewal via the DNS Registry Portal.
- Provision of VPN Accounts through the VPN portal.
- Issuance of TLS/SSL Certificates facilitated through the TLS Labs Portal.

Upcoming Projects

eGRAS Implementation

The Finance Department expressed interest in adopting eGRAS for Government payment activities. A demonstration by the NIC Tripura Team was held on August 5, 2023. Following this, detailed hardware configurations and software technology stack specifications were provided to the Finance Commissioner via an official letter



▲ Fig 3.9: Officials from the state of Nagaland attending the launching program of ULPIN online

on October 10, 2023. The State Government's response is awaited.

GEMS Proposal

In response to the Principal Account General's Office request, NIC submitted a proposal for the Gazetted Entitlement Management System (GEMS) along with NICS PI. The PAG's Office forwarded the proposal to their headquarters in New Delhi, pending approval and financial sanction.

CollabFiles Implementation for Home Department

Considering the regular collection of departmental activities by the state home department for significant occasions like Statehood Day, Independence Day, and Republic Day speeches for VIPs, NIC Nagaland proposed

implementing the CollabFiles portal. This platform aims to manage documents and facilitate information collection for improved collaboration in handling office activities.

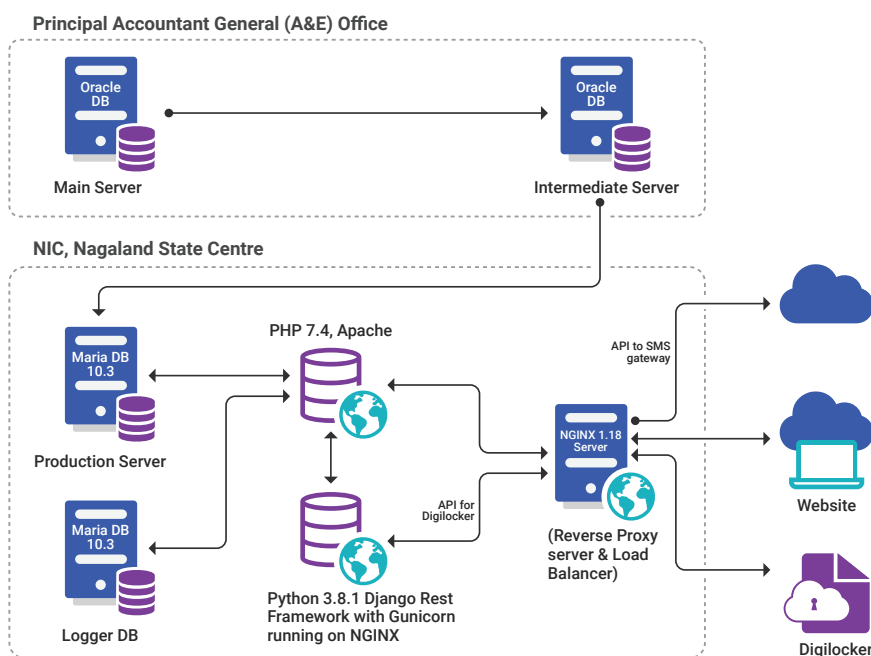
Accolades

NIC Nagaland received the Hon'ble Governor's Commendation Certificate during the 70th Republic Day ceremony at Kohima. Shri Padmanabhai Balakrishna Acharya presented the award, acknowledging the commendable services rendered in the realm of ICT and e-Governance, significantly contributing to good governance in Nagaland. In his speech, the Hon'ble Governor of Nagaland highlighted the recognition bestowed upon the 'CM's Dashboard' of Nagaland by the Indian Express Group in 2018. This dashboard, developed and maintained by NIC, was specifically acknowledged for its excellence.

Way Forward

Since its establishment, NIC Nagaland has been a pivotal force driving ICT empowerment within the Government framework. The recognition from the Government of Nagaland serves as a significant encouragement, motivating NIC Nagaland to exceed governmental expectations. Our objectives include integrating financial activities like eGRAS and the Integrated Pension system, enhancing citizen service applications in the Transport sector, implementing SPARROW for all Government Employees in the Administrative sector, and expanding eOffice across the entire Government setup. These initiatives aim to enhance efficiency and transparency within the Government ecosystem. We are confident that with the support of the NIC family, we can successfully achieve these goals.

▼ Fig 3.10 Online GPF Application Architecture



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