





सत्यमेव जयते

Government of India  
Ministry of Electronics & Information Technology

Application Software Solutions 

Hardware & System Software Consultancy 

Setting up LAN & WAN 

Turnkey Projects like NKN 

Cloud Services 

SMS & Relay Services 

Payment Gateway Services 

# NATIONAL INFORMATICS CENTRE

## NIC Goa State Project Profile

Software Solutions &  
Aadhaar Authentication  
Services

Network  
Solutions

Digital Payment  
Services

e-Mail, Internet  
SMS

Cloud, Website hosting  
& Video Conferencing

[www.nic.gov.in](http://www.nic.gov.in)



# Index

1	NKN / NICNET Connectivity (G2G).....	1
2	Data Centre / Mini-Cloud (G2G).....	1
3	Video Conferencing (G2G).....	2
4	NIC Email , Kavach & VPN (G2G).....	2
5	e-Governance Initiatives - Digital India Mission.....	2
5.1.	Accounts on-line (G2G, G2C & G2B).....	3
5.2.	e-Challan Payment Gateway (PG)(G2G & G2C).....	3
5.3.	e-Pagaar20 (G2G).....	3
5.4.	e-Kuber Integration with RBI (G2G).....	4
5.5.	PFMS Integration (G2G & G2B).....	4
5.6.	VATSoft / GOYKAR Project (G2G & G2B).....	4
5.7.	Goa State Excise Management System-GEMS(G2B& G2G).....	5
5.8.	Property Registration – NGDRS (G2C).....	5
5.9.	Vahan/Sarathi/e-Challan/mParivahan-Goa(G2G,G2C& G2B).....	6
5.10.	Vehicle Location Tracking & Emergency Alert System (VLT & EAS) (G2C).....	6
5.11.	Integrated Road Accidents Database (iRAD) (G2G & G2C).....	7
5.12.	RTI Online Portal.....	7
5.13.	ITMS Portal.....	8
5.14.	e-Procurement & e-Auction – GePNIC (G2G & G2B).....	8
5.15.	Births and Deaths Registration – DPSE (G2G & G2C).....	9
5.16.	Access & Benefit Sharing System – Goa State Biodiversity Board (G2G & G2B).....	9
5.17.	Case Information System CIS (G2G & G2C).....	10
5.18.	Municipal Administration Software – MAS (G2G & G2C).....	10
5.19.	GIS Application for Property and Solid Waste Management (G2G & G2C).....	10
5.20.	e-Public Distribution System - e-PDS (G2G & G2C).....	11
5.21.	GIS Application for Property and Solid Waste Management (G2G & G2C).....	11
5.22.	Dharani (G2G & G2C).....	12
5.23.	Bhunaksha (G2G & G2C).....	12
5.24.	Goa Marriage Registration (G2C).....	13
5.25.	Society Registration (G2C).....	13
5.26.	e-Budget Information System – e-BIS(G2G & G2B).....	14
5.27.	Sparrow(G2G).....	15
5.28.	e-Cabinet (G2G).....	15
5.29.	eOffice Lite (G2G).....	15
5.30.	GST RBI Memorandum of Errors (G2G).....	16
5.31.	Goa State Scholarship Portal.....	16
5.32.	e-Cooperative Management System (G2B).....	17
5.33.	On-line Consent Management & Monitoring System (G2B).....	17
5.34.	Infogram / Panchayat Suite – PANS (G2B).....	17
5.35.	CONFONET (G2C).....	18
5.36.	IVFRT (G2G & G2C).....	18
5.37.	Documents & Certificates – e-Sanad (G2C).....	18
5.38.	Interoperable Criminal Justice System (ICJS) (G2G).....	19
5.39.	Arms License Issuance System – ALIS (G2G).....	20
5.40.	Online Indian Citizenship (G2C).....	20
5.41.	Prior Reference Check – PRC (G2G).....	21
5.42.	PARIVESH.....	21
5.43.	Aadhaar Enabled Authentication Services through NIC AUA.....	21
5.44.	Concluding Remarks.....	22

# NIC Goa State e-Governance Report

## 1 NKN / NICNET Connectivity (G2G)

National Knowledge Network (NKN) project is aimed at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity. NKN with its multi-gigabit capability aims to connect all universities, research institutions, libraries, laboratories, healthcare and agricultural institutions across the country to provide reliable and high bandwidth. NKN is a state-of-the-art Pan-India network and is a revolutionary step towards creating a knowledge society without boundaries. NKN is designed to provide high availability, Quality of Service, security and reliability.

NKN Goa's Network Operating Centre (NOC) is established at Secretariat Complex, Porvorim, Goa. At present, NKN connectivity is extended to 15 institutions in Goa which include Goa University, Goa Medical College, Goa Engineering College, IIT Goa, NIT Goa, CSIR-National Institute Oceanography(NIO), National Centre for Polar and Ocean Research(NCPOR) etc.

In addition to Research and Educational institutions mentioned above, the entire Internet bandwidth required for Goa Broad Band Network (GBBN) which is a SWAN connectivity initiative launched by Govt of Goa for connecting all Government Departments in Goa is provided from NKN. This help to integrate and extend Government of India services to Government of Goa.

NICNET connectivity is provided to Central Government Departments located in Goa through leased line and are tightly coupled for secure data exchange. Currently more than 20,000 clients spread across Goa in various Government Departments and Institutions are availing NIC's network services.

Reference URL <https://www.nic.in> & <https://nkn.gov.in>

## 2 Data Centre / Mini-Cloud (G2G)

NIC Goa Data Centre is ISO certified and equipped with State-of-Art technology and a Tier-3 level Data Centre which ensure 99.98% uptime. This centre is managed round the clock by shift engineers and is equipped with high speed National Knowledge Network (NKN) connectivity with failover feature with Mumbai and Bangalore from RailTel, Power Grid and BSNL respectively. In January, 2021 Mini-Cloud is setup at NIC Data Centre, Porvorim, Goa. Now it is planned to migrate all the static sites from SDC to NIC-Mini-Cloud with in span of next few months. Mini-Cloud services can be availed by mean of online registration.

Registration URL : <https://cloud.gov.in> (National Cloud), <https://statecloud.nic.in> (Mini-Cloud Goa)

### 3 Video Conferencing (G2G)

Two VC studios at NIC State Centre, Two VC Studios at Secretariat and each at District NIC Centre are made available in Goa State. Video Conferencing has emerged as one of the most essential IT infrastructure during COVID-19 pandemic situation to ensure social distance. Further, it has helped to reduce the Government tour expenses and officers travelling time. The adoption of VC has increased many folds and NIC has provided extensive support for conducting and promoting VC culture in entire State.

NIC is providing Video Conferencing services since 1995. Presently services are available from about 1800 (NICNET + NON NICNET) existing studios spread across the country including State capitals, Districts & Union territories. Video Conferencing facilities are being upgraded with state of art technology in all locations by providing High Definition Video Conferencing systems.

Videoconferencing services are being used for monitoring of various Government Projects such as e-Pragati, Public Grievances, Monitoring of Law and Order, Hearings of RTI cases, Distance Education, Tele-Medicine, monitoring of Election processes, etc. Any Government Department can avail this VC service through online registration.

VC Booking URL : <https://reserve.nic.in>

### 4 NIC Email , Kavach & VPN (G2G)

NIC eMail services are provided for all Government Departments and is free. Official designation eMail ID are valid for two years where as Government Official name base eMail IDs are valid till date of retirement. NIC eMail Services are provided to more than 3000 users and departments in Goa. Further, e-Mail Relay Service and SMS Services are also available for integration with Applications.

Kavach is a comprehensive solution for addressing various threats and ensure OTP based enhanced authentication for secure access of NIC eMail. This application is available for Window / Linux / Android / iOS platform.

Virtual Private Network (VPN) is most economical and secure method of connecting private networks over Internet. NIC VPN Service is used by government officials to update their web sites and remote management of the servers hosted in NIC Cloud. VPN Services are also used to access secure application under various e-Governance projects.

Reference URL <https://email.gov.in> , <https://kavach.mail.gov.in> , <https://vpn.nic.in>

### 5 e-Governance Initiatives - Digital India Mission

NIC is playing an instrumental role in executing key IT projects, in close collaboration with Central and State Governments, making the last-mile delivery of various digital Government services to the citizens a reality. NIC endeavours to cater to ICT needs at all levels of governance including Central, State, Districts, Judiciary and Legislative layer. Some of the major and important Government initiatives of NIC Goa are highlighted here :

## 5.1. Accounts on-line (G2G, G2C & G2B)

Accounts Online is implemented for the Directorate of Accounts and has been operational since 2005. Accounts Online caters to the internal computing requirements of the Directorate of Accounts as well as providing an interface to all DDO's for Fund Management, upload bills, manage e-payments and manage income tax figures over the Intranet.

It is a suite of nearly 15 Systems such as Integrated Bill Processing System, Treasury Accounting System, General Provident Fund System, Works Audit System, Pension Accounting System, Loans Management System, Advances Management System, e-DDO, e-Payments, Compilation etc. with a common database. Accounts Online covers the entire gamut of government accounting and reporting functions. Currently these systems are being upgraded in line with latest technologies.

Benefits/ Advantages of the Initiatives :

1. Budget Control Register is maintained electronically.
2. The entire workflow right from submitting the bills to electronic payment is computerized, thus saving time.
3. Data for Compilation of Accounts is available electronically. Tedious reports for monthly compilation of accounts and Appropriation Accounts are prepared digitally.
4. Salaries and third party payments are disbursed electronically. Paper Cheques are a minuscule percentage.

URL: <http://10.190.22.10/eddo2> , <http://10.190.22.10/ibps2>

## 5.2. e-Challan Payment Gateway (PG)(G2G & G2C)

e-Challan Payment Gateway aims at providing an online payment option to the citizen, for all Government Transactions. It facilitates the credit of payments directly to Government Treasury. The department websites can be integrated with e-Challan PG. It also hosts the services directly on the portal. e-Challan PG is integrated with SBI MOPS (Multi Option Payment System) and SBI e-Pay gateways which provide multiple payment options through Net banking, Credit Card and Debit Card. So far, this project has won three awards at National Level and is a step towards Green Governance. Currently 75% of all receipts are received in online payment mode.

Benefits/ Advantages of the Initiatives :

- 80% of receipts are received in online mode
- 40+ departments are offering online payment services
- 400+ services are available.

<https://echallanpg.goa.gov.in/>

## 5.3. e-Pagaar20 (G2G)

e-Pagaar20 is a comprehensive solution for preparation of pay bills of all the Gazetted and Non-Gazetted Officials of Govt. of Goa. It facilitates preparation of all the payment schedules of the pay bill. e-Pagaar is designed and implemented with the objective of



exchanging the pay data electronically with all the relevant systems of Directorate of Accounts (DOA) so as to avoid duplicate data entry and also to eliminate usage of papers. It is one of the green initiatives of the Govt. of Goa.

Benefits/ Advantages of the Initiatives :

- All salary data is captured at source
- GPF/NPS/Advances data is auto posted
- NPS data can be uploaded to NSDL by the 5th of the subsequent month resulting in huge saving for the Government
- All 520 DDO's and 40,000 employees are on-boarded.

URL : <http://10.190.22.11/epagaar20>

## 5.4. e-Kuber Integration with RBI (G2G)

The e-Kuber system integrates with the RBI payment gateway to execute all kinds of payments to beneficiaries. The system has gone live from December 2022. And currently salary and third party payments are executed through this system. Since the RBI does not have transactions charges, this system will result in huge savings to the State Government.

Benefits/ Advantages of the Initiatives :

- RBI transaction fee is nil, which leads to saving of huge Government money.
- Immediate notifications receipt from RBI as compare to SBI.

URL: <http://10.190.22.7/ekuberlive>

## 5.5. PFMS Integration (G2G & G2B)

This system is used to map all State and Centrally sponsored budget schemes and to report the expenditure done on these schemes to the PFMS National portal on a daily basis. Goa has the distinction of being the first State to achieve:

1. 100% mapping of schemes for the last three financial years.
2. 100% data sharing for last 3 FY's.
3. No deficit reported for FY 22-23.

Benefits/ Advantages of the Initiatives :

1. Scheme mapping interface is provided to the user.
2. Reporting of expenditure by the State to the PFMS portal is done on a daily basis. Thus helping decision makers at the Ministry of Finance (GOI) to monitor the schemes effectively.

URL: <http://10.190.22.10/pfms>

## 5.6. VATSoft / GOYKAR Project (G2G & G2B)

VATSoft System deals with Value Added Tax (VAT) for Petroleum and Liquor dealers. It facilitates Department of Commercial Taxes in performing day to day activities such as, Registration, De-registration, Tax Collection, Returns, Scrutiny, Assessment, Refund, Statutory Forms, Appeal, Revision, Recovery, MIS Reports, Inward and Outward. Apart

from VAT, the system has been customized for Central Sales Tax (CST), Entry Tax, Entertainment Tax, Luxury Tax, TDS, Green Cess and Non-biodegradable Cess. Major features of the system are Comprehensive Dealer Ledger, Scrutiny of Returns, Assessment, Generation of Notices, Orders, Certificates, Reports, Audit Trail, e-Challan, on-line Payment and selection of dealers for Assessment using Risk Analysis of Returns, One-time-Settlement 2020, The Goa (Recovery of Arrears of Tax, Interest, Penalty, Other Dues through Settlement) Act, 2023 ("GRATIPOS Act").

Modernisation of VatSoft G2B, G2G services is taken up for Department of State Tax.

Online Statutory Forms are generated in PDF format with a Barcode and water marking background. The details of these forms can be verified by the receiving authority through department website and also through central TINxSys.

Benefits/ Advantages of the Initiatives :

- Immensely helps the department in Assessment and Tax Recovery.
- Easy of Scrutiny and Assessment of Dealers based online filed returns and tax payments.
- Provides Online verification mode for inter-State Business Transactions.

URL : <https://vat.goa.gov.in/>&<https://tinxsy.com/>&<https://statetax.goa.gov.in>

## 5.7. Goa State Excise Management System-GEMS(G2B& G2G)

The GEMS system facilitates issue of license, permits for import, export of raw materials, finished products of liquor and monitors revenue collection for entire Goa State. GEMS help the business community to apply on-line for permits, NOC's, License (Registration/Renewal), Label (Registration/Renewal) and Local Transport Permits and Livestock management/tracking at manufacturing unit. Apart from this, the system manages complete work flow on the basis of payment of excise duty right from raw materials, blending, bottling, warehouse and dispatch. Inbuilt facility is provided to generate e-Challan based on excise duty with on-line payment. Thus, GEMS ensure "Anywhere, Anytime Services" to the dealers.

Benefits/ Advantages of the Initiatives :

- Processing time has reduced to 30 minutes from 10 days.

URL : <https://goaexcise.gov.in>

## 5.8. Property Registration – NGDRS (G2C)

National Generic Document Registration System (NGDRS) is a work flow based system for Registration of Properties with on-line Application and on-line Payment Services. It caters to the entire Registration process in a faceless, paperless manner with options for property valuation, fee calculation and on-line payment of Registration Fees, etc. The citizen needs to visit only once at the time of final registration stage to Sub-Registrar office for capturing bio-metrics and photo which is mandatory from identity and security point of view.

Benefits/ Advantages of the Initiatives :

- Facilitate 24x7 operations for the Citizen to apply through Online mode for Registration Deed.
- Citizen empowerment through Digital India Program facilitates easy and Transparent Registration Process on First Come First Serve Basis.
- E-stamping

- Online Surveillance and vigilant on the registering authorities as per Time Bound Delivery of Services.

**URL :** <https://ngdrsgoa.gov.in>

## 5.9. Vahan/Sarathi/e-Challan/mParivahan-Goa(G2G,G2C& G2B)

**Vahan** is a comprehensive Application that takes care of all Vehicle Registration, Fitness, Taxes, Permits & Enforcement at the RTOs, there by bringing in efficiency, transparency and accountability in the System.

**Sarathi** is issuance of Learner's licenses and Driving licenses at the RTOs.

National **e-Challan** System Android based mobile app and web interface, developed for Transport Enforcement Officers and Traffic Policemen to issue on the spot Challan for traffic violation. This app-cum-application is integrated with Vahan and Sarathi applications.

**mParivahan** facilitate to maintain Online Vehicle Registration and Driving License in digital format in-place of original documents and other online RTO related activities.

**e-Transgoa** all the functions related to STA & RTA permits and integrated with Vahan and Sarathi applications.

**Checkpost Goa** facilitate Permit Fees, Road Tax, Passenger Tax and CESS Collection of the vehicles entering the State of Goa.

Benefits/ Advantages of the Initiatives :

- Availability of Online verified data of Registrations (RC) & Driving licenses (DL) from 32+ States & UTs.
- Application under Cloud deployment to enhance the Data Storage, Security and Scalability.

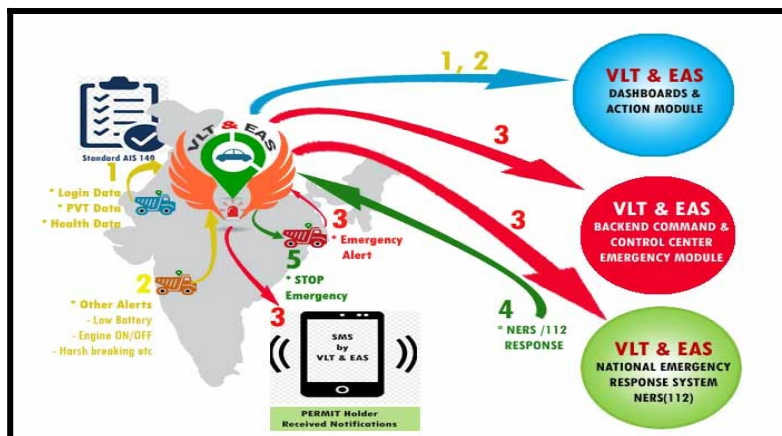
<https://vahan.parivahan.gov.in> , <https://sarathi.parivahan.gov.in>&<https://echallan.parivahan.gov.in>

## 5.10. Vehicle Location Tracking & Emergency Alert System (VLT & EAS) (G2C)

To ensure safety of ladies while traveling in public transport, the Ministry of Road Transport & Highways (MoRTH), Government of India, through Central Motor Vehicle Rules (CMVR) in 2016 made it mandatory to install Vehicle Location Tracking (VLT) Device and Emergency Alert (EA) Buttons in all Public Transport (Carriage) Vehicles (Four wheeled or higher, passenger carrying vehicles), with effect from April 2018. Accordingly VLT & EAS project has been implemented in Goa through NIC Uttarakhand.

### Benefits/ Advantages of the Initiatives :

- Enhance Safety & Security of Women Passengers while traveling through Public Transports, Panic buttons helps to alert the Emergency Response System take action.
- Online vehicle tracking facilities to fleet owners and passengers.





URL : <https://gavlts.goa.gov.in/IS16833&https://gavlts.goa.gov.in/AIS140>

### 5.11. Integrated Road Accidents Database (iRAD) (G2G & G2C)

In view of accurately identifying accident spots and taking corrective steps, the Ministry of Road Transport & Highways (MoRTH), Government of India has decided to develop a database of road accident spots under the project “Integrated Road Accident Database (iRAD)” and the purpose is ‘Safe Road for All’. The development and implementation of iRAD has been entrusted to IIT Madras and National Informatics Centre Services Inc. The stakeholder departments associated with iRAD Project are Police, Transport, Health and Highways/PWD Departments.

Benefits/ Advantages of the Initiatives :

- Main aim is to improve road safety during travel by identifying and rectifying black spot on road.
- Reduce response time of Police, Health, Transport and Highways departments in case of road accidents and ensure immediate help to the accident victim at Hospital.

URL : <https://irad.parivahan.gov.in>

### 5.12. RTI Online Portal

RTI Online Portal implementation is part of the Apex Court Mandate to enable RTI Applicants in e-filing of RTI Applications, First Appeal, and Second Appeal, and also to receive replies in an online manner. The portal facilitates e-filing of RTI Applications/First Appeal/Second Appeal by Indian Citizens for any of the Departments/Offices/Sub-Offices/Public Authorities of the Goa State Government.

The portal manages RTI information at three levels for Public Authorities: Department, Office, and Sub Office.

The following roles exist on the portal to manage the RTI Applications/First Appeal/Second Appeal:

Nodal Officer (NODAL)

Public Information Officer (PIO)

Assistant Public Information Officer (APIO)

First Appellate Authority (FAA)

Clerk (CLERK)

State Information Commissioner (SIC)

#### Benefits and Advantages

- Promote e-filing of RTI Application, First Appeal and Second Appeal Online.
- Promotes Digital payments through e-Challan Payment Gateway which allow Payments to be made through Internet Banking, Debit/Credit cards of Master/Visa cards, and UPI.
- Applicant can view the Public Authorities reply in his own Dashboard.
- SMS Alerts are sent to Applicant and PIO, FAA Officers after submission/receiving of any new Applications.

URL : <https://rtionline.goa.gov.in>

### 5.13. ITMS Portal

Intelligent Traffic Management System (ITMS) is used for monitoring of Traffic Violations.

L & T SmartWorld has been pushing the violations data to the NIC ITMS Application from 13 Locations around Panaji and Porvorim.

Violations Captured for ITMS Challaning

- Red Light Jump
- Over Speeding

Additional offences are added in ITMS

- Without Helmet
- Talking on Mobile Phone
- Overloading Two-Wheelers(Triple Seat)
- Fancy number plate
- Failure to obey traffic signs (Wrong entry)
- Vehicles without Valid fitness.
- Vehicles without valid Insurance
- Vehicles without Valid Permit
- Tax not paid

Also provision has been given to Enforcement officers to add any valid Offence through the CCTV-Tab.

Average Latency time is 24 hr to 30 hr - (From Violation Detection to e-Challan Generation)

Average Latency time is 30 Minutes - (From Violation approval to e-Challan Generation)

From its initial implementation from 01-Jun-2023 till 25-May-2025

e-Challans issued - 1,61,662/-

Total Challan amount - 18.13 Cr.

Revenue Collected - 7.34 Cr.

#### Benefits and Advantages

- a. AI based Camera facilitated Electronic Enforcement.
- b. Vehicles are checked for serious Violations.
- c. Revenue Generation to the State
- d. Require less Work Force.

URL : <https://itmschallan.parivahan.gov.in/>

### 5.14. e-Procurement & e-Auction – GePNIC (G2G & G2B)

The Central Public Procurement Portal (CPPP) of Government of India provides a single point access to the information on all procurements and auction made across various central government organizations across the country. It facilitates electronic procurement of Goods, Services & Works by any Government department. It is a State-of-Art Software Product spread over 46 Live Instances as SaaS Model. The system has been designed taking into account the tender rules followed in the country, the World Bank, ADB and CVC guidelines. It is widely implemented in over 450 Central Government departments / PSUs across 28 States/ Union Territories.

NIC e-procurement portal (GePNIC) for Goa Govt was launched on 01/08/2021 and currently more than 214 Organizations/Departments have implemented this system. GePNIC System ensures that procuring entities follow transparent and competitive processes and that there are adequate checks and balances in place. NIC Goa had trained officials of 174 Departments to handhold through Procurement process, as it is important to build capacity within procuring entities to have the skills and knowledge necessary to make sound decisions about procurement.

#### Benefits/ Advantages of the Initiatives :

Public procurement is one of the powerful tool for driving economic development in the State of Goa.

Statistics as on 2025		
1	No of dept on boarded	295
2	No of Training completed	275
3	Number of Tenders floated	22150
4	Value of Tenders(Rs in Crore)	29,100 Crores
5	Number of registered users	7850

URL : <https://eprocure.gov.in> & <https://eprocure.goa.gov.in/>

### 5.15. Births and Deaths Registration – DPSE (G2G & G2C)

The Directorate of Planning, Statistics & Evaluation (DPSE) is the Chief Registrar for Birth and Deaths and they are managing Birth and Death records of post 1971 using NIC application at Panchayat, Municipal Administration and GMC. The digitally signed repository of Births and Deaths data is being made available to the public.

#### Benefits/ Advantages of the Initiatives :

- Online Issuance of Birth & Death Certificate.

URL : <https://rbd.goa.gov.in/>&<https://panchayatgoa.gov.in>

### 5.16. Access & Benefit Sharing System – Goa State Biodiversity Board (G2G & G2B)

Goa State Biodiversity Board (GSBB) is an autonomous body of Government of Goa under Department of Science, Technology and Environment. It is workflow based system relating to the conservation of biodiversity, sustainable use of its bio components and equitable sharing of the benefits arising out of the utilization of biological resources. For this, NIC Kerala BIOMIS system is customised and implemented at Goa.

#### Benefits/ Advantages of the Initiatives :

- Online availability of the vast and richness of Goa Bio Diversity Register.
- Promote people participation in conservation of Goa Bio-diversity in a more inclusive way.

URL : <http://biomis.nic.in/>(select State as Goa)

### 5.17. Case Information System CIS (G2G & G2C)

CIS application meets the functional requirements of the registry of High Court, District and subordinate Courts with respect to filing and registration of cases, preparation of Cause lists, publishing of orders & judgments, CIS shares case status, Roznamas, Judgments, Orders, Cause lists through a website for the benefit of the litigants and legal fraternity.

A touch Screen based Information kiosk is also installed at the High Court Complex, Panaji for the lawyers and litigants to view Judgments, Daily orders, Case status and Cause lists. SMS and Email alerts are being sent for all activities to lawyers and litigants. Digital Display Boards are also installed at various places within high court premises to show the case proceedings in all court halls.

#### Benefits/ Advantages of the Initiatives :

- Facilitate paperless court proceedings which has helped to increase the efficiency of the hearing.
- Support Go Green movement by reducing usages of paper in court proceeding.

URL : <http://ecourts.gov.in> , <http://www.hcbombayatgoa.nic.in>, <https://efiling-mh.ecourts.gov.in>

### 5.18. Municipal Administration Software – MAS (G2G & G2C)

MAS has been designed and implemented for all the Municipal Councils/Corporations in Goa with a view to ensure timely delivery of various end-to-end on-line services to the citizens through web-interface. MAS has various software modules such as Registration of Births & Deaths, House Tax Collection, Rent Collection, Issuance of Trade Licenses and Signboards, Accrual Based Double Entry Accounting System and Counter Services for the citizens for on-line tax payments. MAS has also been integrated with UMANG platform wherein essential municipal services have been provided to the citizens.

#### Benefits/ Advantages of the Initiatives :

- Earlier citizens had to wait in long queues to pay their taxes. Now the same can be done online, from the comfort of their homes.

URL : <https://goaulbservice.gov.in>

### 5.19. GIS Application for Property and Solid Waste Management (G2G & G2C)

This project developed by NIC Delhi, GIS Division revolves around geo tagging of Solid Waste and Property assets within the jurisdiction of the Urban Local Body (ULB). This has three components :

- i Android mobile App (G2G) – for capturing geo-tagged images.
- ii The Web GIS portal – for monitoring purpose.
- iii Real Time Mechanical Sweeping Vehicle Tracking System.

#### Benefits/ Advantages of the Initiatives :

- Geo-tagging of property assets provide better decision making capabilities for ULBs and better management of Solid Waste collection.

URL : <https://geo.nic.in/gsuda>

## 5.20. e-Public Distribution System - e-PDS (G2G &G2C)

e-PDS has been designed and implemented to meet the objectives outlined under the Targeted Public Distribution System (TPDS). This helps to achieve transparency in the distribution of commodities to the beneficiaries and facilitates Ration Card Management, Fair Price Shop Management, Supply Chain Management, Commodity Allocation and Fair Price Shop (FPS) Automation with the help of Aadhaar based ePOS device. It aims to achieve transparency in the distribution of commodities to the beneficiaries. e-PDS is a workflow based Web Application and provides complete transparency in disseminating up-to-date information to the public and other stakeholders.

FPS automation has been achieved at all FPSs using AePDS software of NIC Andhra Pradesh. Goa is one of the States who have enabled Intra-State as well as Inter-State portability.

Benefits/ Advantages of the Initiatives :

- Only Aadhaar authenticated PDS beneficiaries are provided with the commodities which has helped to reduce pilferage to a large extent in the state.
- PDS related information dissemination to the citizens made possible by way of Department web portal as well as centrally monitored Annavitrans portal.

URL : <http://goacivilsupplies.gov.in>

## 5.21. GIS Application for Property and Solid Waste Management (G2G & G2C)

This project developed by NIC Delhi, GIS Division revolves around geo-tagging of Solid Waste and Property assets within the jurisdiction of the Urban Local Body (ULB). This has three components :

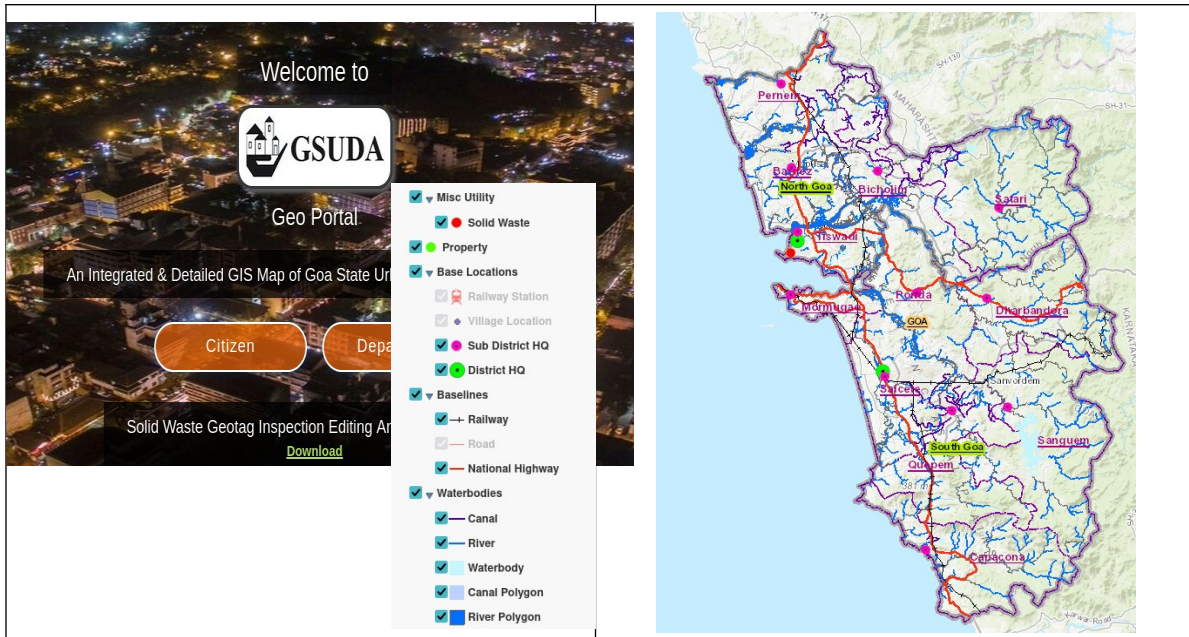
- iv Android mobile App (G2G) – for capturing geo-tagged images.
- v The Web GIS portal – for monitoring purpose.
- vi Real Time Mechanical Sweeping Vehicle Tracking System.

Benefits/ Advantages of the Initiatives :

- Geo-tagging of property assets provide better decision making capabilities for ULBs and better management of Solid Waste collection.

URL : <https://geo.nic.in/gsuda>





## 5.22. Dharani (G2G & G2C)

Dharani deals with managing Textual Land Records Data, namely, RoRs (Record of Rights). Goa was the first state to have 100% computerisation in this field. It complies with all the guidelines issued under the National Land Records Management Programme (NLRMP) of Govt. of India. Dharani automates Mutations, Partitions, Amalgamations etc. and has two basic components for managing Urban and Rural Land Records.

- Dharani Rural : Handles Rural RoR, also known as Form I & XIV, managed by Taluka offices / Mamlatdars
- Dharani Urban: Manages Urban RoR, known as Form-D, managed by City Survey Offices / ISLRs.

After recent integration with the Property Registration System (NGDRS), Dharani automatically registers a mutation case whenever a Land Sale Deed is executed by SROs.

Dharani has other components such as the citizen portal for DSLR for online viewing of RoR, Mutation status, Notices, Maps etc. free of charge. There is another component called 'Dharani Dashboard' for all sorts of Land Records related reports and statistics.

### Benefits/ Advantages of the Initiatives :

- Transparent, speedy and online delivery of Revenue services.

**URL :** <https://dslr.goa.gov.in/>

### 5.23. Bhunaksha (G2G & G2C)

Originally a product of NIC-HQ for Cadestral Maps management, BHUNAKSHA has been heavily customized by Goa NIC team by adding many new features. Recently it has been ULPIN enabled. Both Dharani and Bhunaksha are integrated with each-other and each of them share RoR Data and Maps data to important projects like PM-GatiShakti, Matrubhoomi, OneMap Goa and many state departments.

**Benefits/ Advantages of the Initiatives :**

- Eliminates scope for middleman and scams by providing free viewing of RoRs and Maps.
- Helps to prevent land grabbing and other disputes by swiftly blocking hundreds of land parcels.

URL : <http://bhunaksha.goa.gov.in/bhunaksha>

Dharani and Bhunaksha shares Text and Map data online through web services with entities like Forest and Agriculture Department(Goa), NGDRS(Goa), Goa Electronics Ltd., PM-Gatishakti P  
Benefits/ Advantages of the Initiatives :  
Transparent, speedy and online delivery of Revenue services project (Gujarat), TERI(Goa), NCSCM (Chennai), Water Resource Deptt.(Goa), SGPDA Madgaon(Goa), Matribhoomi Project by DoLR(Govt. of India), OneMap(Goa), Smart City Project(Goa), TCP(Goa) etc.

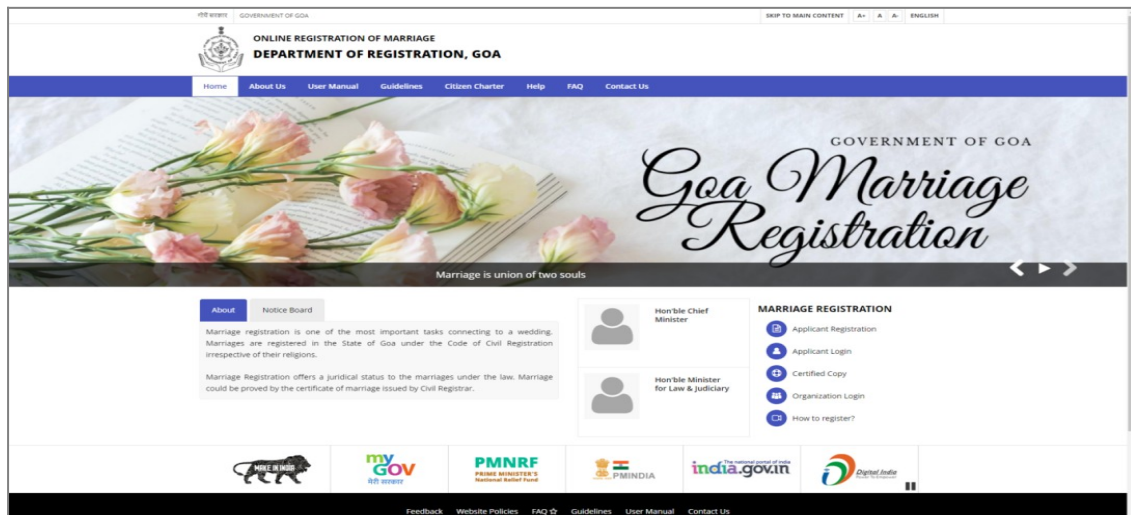
## 5.24. Goa Marriage Registration (G2C)

Goa Marriage Registration Portal of Registration Department Goa has been developed locally and launched to digitize the records of marriage registration. Marriages are registered in the State of Goa under the Code of Civil Registration irrespective of their religions. Marriage Registration offers a juridical status to the marriages under the law. Marriage could be proved by the certificate of marriage issued by Civil Registrar. Thus, Zero physical file movement from start to end, this has lead to better governance and a paperless office.

**Benefits/ Advantages of the Initiatives :**

- Reduce processing time to 10 minutes from 2 to 3 days.
- Transparent and help to curb malpractice in marriage registration.
- Digitally Signed Marriage Certificates are available.
- Juvenile marriages can be stopped.

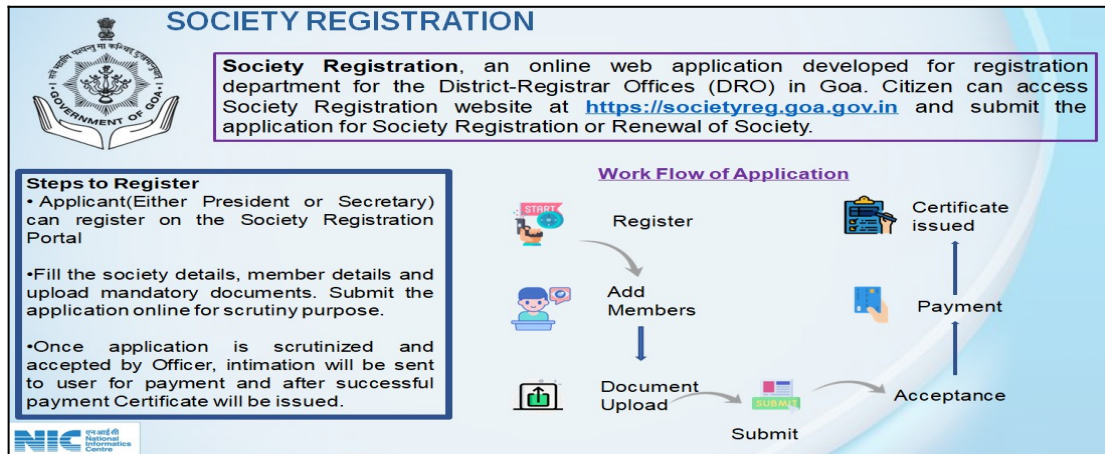
URL : <https://reg.goa.gov.in>



## 5.25. Society Registration (G2C)

Society Registration is an online workflow based web application developed for registration department for the District-Registrar Offices (DRO) in Goa. Citizens can access Society Registration

website at and submit the application for Society Registration, which facilitates issue of Certified Copies and Online Search of Registered Societies all over Goa.



**Benefits/ Advantages of the Initiatives :** Reduce processing time to 10 minutes from 2 to 3 days.

URL: <https://societyreg.goa.gov.in>

## 5.26. e-Budget Information System – e-BIS(G2G & G2B)

e-BIS is an online system for budget estimates and finalization. It is a work-flow system and budget requirements are entered by departments. Finance (Budget) department finalizes and allots the required budget to the departments. All the processes such as Budget planning, Estimate, Budget finalization, Schemes creation and linking with budget, Budget allocation and distribution, Re-appropriation, Surrender of funds, Supplementary demands and Dashboard for budget. For the last four years paperless budget is being presented in Goa Assembly using this portal. This being an important milestones in the Go-Green initiative.

**Benefits/ Advantages of the Initiatives :**

- Facilitate last minute change and introduce simplicity in operation and maintenance of entire Budget process.
- Saving of more than ten crores on stationary and manpower for preparation of budget.

URL: <http://goabudget.gov.in>



## 5.27. Sparrow(G2G)

This is an on-line system based on the comprehensive performance appraisal dossier that is maintained for each member of the Service by the State Government/Central Government. The aim of this system is to facilitate the electronic filling of Performance Appraisal Report (PAR) by officers in a way that is not only user friendly but also allows to fill from anywhere anytime as per their convenience. As on date nearly 500 gazetted officer PAR are managed. Now to expand this service to all the 45,000 Government employee of Goa, proposal is under execution.

### Benefits/ Advantages of the Initiatives :

- Facilitate online filing of PAR and Immovable Property Return (IPR), which has introduce simplicity in maintenance and follow up and review process.

URL : <https://sparrow.eoffice.gov.in>, <https://sparrow-ips.eoffice.gov.in>, <https://sparrow-ifs.eoffice.gov.in>, <https://goasparrow.gov.in>

## 5.28. e-Cabinet (G2G)

e-Cabinet a monitoring digital Governance platform for easy, instant and secure exchange of information among all Government Departments.

This is a powerful software portal for State governments to conduct Cabinet meetings electronically and online mode. It maximizes usage of technology in meetings and reduces paper use. It automates work flow activities of meetings; before, during and after. It is designed for smart tablets, with rich UI and UX elements, for ease of use. Push & Pull mechanism built in portal ensures high security needed for Cabinet matters and is a another milestone in the Digital India movement and enables smart governance. Core part of this application is developed by NIC Uttarakhand.

### Benefits/ Advantages of the Initiatives :

- Provides easy mechanics for Departments to send and view Agenda, Table Items, Cabinet Note at any point of time online and help to monitor status against each Cabinet

## 5.29. eOffice Lite (G2G)

Indian Customs, Goa implemented eOffice in their day today office operation since last two years. Government of Goa and Goa Universities havealso started implementation of eOffice. eOffice is a completely paperless, digital workplace solution to manage the movement of files and documents in an organization. It is based on the Central Secretariat Manual of e-Office Procedure.

### Benefits/ Advantages of the Initiatives :

- Enables transition to paperless eFiles, saves environment, reduces carbon footprint.
- Improving productivity and efficiency in its internal processes.



- Increased transparency in the decision making.
- Bring in citizen participation as part of the inclusive governance in the country.

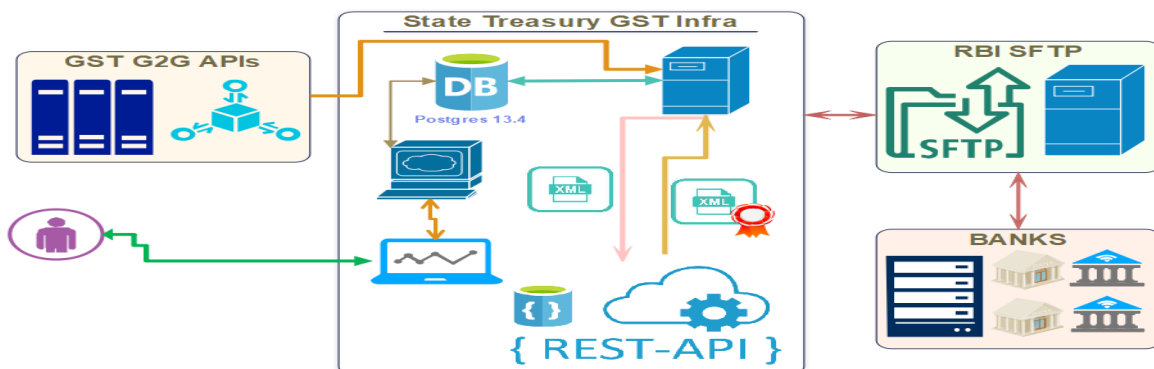
<https://eoffice.goa.gov.in/>

### 5.30. GST RBI Memorandum of Errors (G2G)

As per the Empowered Committee, Ministry of Finance, Government of India, electronic reconciliation of GST collection is to be carried out through RBI as Nodal agency. The activity of GST MoE comprises of comparing the GST collection from GST Network and RBI and intimating the RBI of discrepancies if any, by way of a Memorandum of Errors. NIC Goa has developed a system to generate the MoE so that timely reconciliation of GST data can take place at the Commercial Taxes Department.

#### Benefits/ Advantages of the Initiatives :

- Accurate and transparent reconciliation of GST collection on daily basis.
- Auditors will be able to get the monthly Account Statement Ledger provided by RBI.
- The Process flow of the system is as under



Ready to go live (<https://moe.goa.gov.in>)

### 5.31. Goa State Scholarship Portal

Under Direct Benefit Scheme (DBT), the application is developed to facilitate the transfer of scholarship funds to the individual student from Department of Tribal Welfare under various schemes :

- Pre-Matric Scholarship Scheme (for ST Student of Class V to X).
- Gagan Bharari Shiksha Yojana Scheme (for ST Students of Class XI till Post-Graduation).
- Merit Based Scholarship Scheme (for ST Students who has secured at least 50% marks in Class X or XII).

#### Benefits/ Advantages of the Initiatives :

- End-to-end digitization done from the point of filling online application till the payment Channel.
- Online grievance addressable system for students for timely corrections.

URL : <http://schemesdtw.goa.gov.in>



### 5.32. e-Cooperative Management System (G2B)

This system facilitate, Department of Cooperation, Government of Goa, to create transparent system for Cooperative Societies. The system includes Online Services for Registration of Societies, Renewal, Returns Filing, Audit Report Submission, Online Payment, MIS Reports, Unit Based Monitoring of Societies, Inward/Outward, Establishment, Document Library, etc. The system facilitates the Department in Digital Signing of documents using e-Sign, sending documents through e-Mail. 360 degree profiling of the Legacy Data of Registered Societies is uploaded to the System.

#### Benefits/ Advantages of the Initiatives

- Easy of service due to online workflow based system and Transparent operation
- 360 degree profiling of Registered Societies
- Digital Signing of documents

URL : <https://coopgoa.gov.in/>

### 5.33. On-line Consent Management & Monitoring System (G2B)

The Goa State Pollution Control Board (GPSCB) has been established as a regulatory authority for implementing various pollution control laws in State. The board is committed to provide pollution free environment to the people of state by monitoring pollution and issuing various consents such as Air and Water pollution and NOCs for handling Hazardous and Bio-medical wastes to industries. It is a web workflow based application with various functional modules for on-line Applications, Inspection, Laboratory, Accounting, Solid Waste Management, Consents & NOC Monitoring, Legal, Hazardous and Bio-medical Wastes Management.

#### Benefits/ Advantages of the Initiatives :

- Industries, Hospitals can apply for Consent fresh/renewal, which includes end-to-end Online workflow based solution along with it's tracking at each stage.

URL : <https://goaocmms.nic.in>

### 5.34. Infogram / Panchayat Suite – PANS (G2B)

PANS is an integrated solution to efficiently manage the functions in a village panchayat with respect to Registration of Births & Deaths, House Tax & Light Tax Collection, Lease Rent Collection, Issuance of Construction Licenses, Trade Licenses and Issuance of various certificates like Residence Certificate, Income Certificate, Character Certificate, Caste Certificate etc. and also issuance of NOC for Water & Electricity connection. This application includes Citizen Service Suite, Public WebSite and office related Back-Office Portal which ensure to improve Citizen-to-Government (G2C) interface, makes village panchayat administration efficient, accountable, responsive/transparent and facilitate faster delivery of services to the rural citizens.

A Infogram 4.0 Application for operations of all 191 Village Panchayats of Goa. It facilitate Digital Signing of Births & Deaths, Inward, Outward, Accounts, House Tax, Trade Licence & Signboards, NOC (Water & Electricity) & Certificates (Income, Residence, Character etc.)

Further, to facilitate ease of doing business and in order that citizen avail Panchayat Services Online, House & Garbage Tax Payment received Online (through SBI e-Pay) will be credited directly to Bank Account of respective Village Panchayat. As on date, few Panchayat has taken initiative in this respects.

#### Benefits/ Advantages of the Initiatives :

- Make village Panchayat Administration more Accountable and more Efficient.

- Online payment of various taxes (House Tax, Garbage Tax., Trade Licence etc).

URL : <https://infogram.goa.gov.in/>

### 5.35. CONFONET (G2C)

The CONFONET project has been implemented in the backdrop of The Consumer Protection Act, 1986. Under the provision of the Act, quasi-judicial machinery, namely, Consumer Forums at the district level and Consumer Dispute Redressal Commissions at the State and National Level were setup. The project was initiated by an Executive Finance Committee (EFC) to provide a turnkey solution at each of the district forum, state commission & national level, including linkages with respective state and central governments.

URL : <https://confonet.nic.in/>

### 5.36. IVFRT (G2G & G2C)

In view of the increased threat of international crime and global terrorism, Ministry of Home Affairs (MHA) and Ministry of External Affairs (MEA) with the technical support of NIC decided to implement Immigration, Visa, and Foreigner's Registration & Tracking (IVFRT) System to safeguard National Security. IVFRT is a central project implemented Nationwide at Goa Air Port and Sea Port. This system has automated all processes related to Immigration, Visa, Foreign Aid, and Registration & Tracking in order to facilitate legitimate travellers without compromising national security, individual rights and privacy concerns. Scope of the project includes 190+ Indian Missions, 110 Immigration Check Posts, 12 FRROs (Foreigners Regional Registration Offices), and over 700+ FROs (Foreigners Registration Offices) in the State Headquarters /Districts.

Benefits/ Advantages of the Initiatives :

- Seamless integration of various Immigration-related activities.
- Authentication of traveller's Identity at all touch points.
- Online Registration of Foreigners and automated service delivery system.
- Automated Passenger Profiling and Alerts.

URL : <https://boi.gov.in>

### 5.37. Documents & Certificates – e-Sanad (G2C)

e-Sanad an initiative of Ministry of External Affairs for on-line Attestation and Apostile of Documents for using the document abroad. The system is implemented at Regional Passport Office, Goa.

The end users of the system include the attestation agencies who are responsible for submitting the applications and uploading the scanned copies of documents in the e-Sanad portal. The RPO will verify the documents and the document will be attested / apostilled as per the service requested by the applicant. Once the documents are verified, the verification details will be updated in the on-line e-Register portal. Moreover, the authenticity of the verification by the RPO can be cross-checked across the globe if required.

Benefits/ Advantages of the Initiatives :

- A platform for contactless, faceless, cashless and paperless verification / apostille / attestation of documents for using the document abroad.

- Integrated with various Document Issuing Authorities including National Academic Depository
- Ensures digitally verified genuine documents.
- Verification of authenticity using e-Register

URL : <https://www.esanad.nic.in>

### 5.38. Interoperable Criminal Justice System (ICJS) (G2G)

ICJS is integrated with Crime and Control Tracking Network System (CCTNS) of Police, Prosecution, Prisons, Courts, Forensic Science Laboratory (FSL) and Central Finger Print Bureau across India to track any criminal and it's proceeding. It help immediate retrieval of accused information throughout India. This is achieved due to interlinking data exchange among them. Now it is also planned to integrate Juvenile Justice, Driving Licence and Vehicle Registration details with this system.

Benefits/ Advantages of the Initiatives :

- Enables seamless transfer of data and information among different pillars of the criminal justice system.
- Easy Crime & Criminal profiling.
- Integration with various domains such Arms Licenses System, Vahan / Sarathi, Passport /IVFRT etc.
- Interoperability among Police, Prosecution, Forensic, Court & Prison to achieve "One Data Once Entry".

URL : <https://icjs.gov.in>

**ePrison** is a centralized application for management of Prison activities in India. The application is implemented in Goa since February 2020. In ePrison, all the accused information is stored and integrated with Interoperable Criminal Justice System (ICJS). ICJS facilitates immediate retrieval of accused information throughout India. The implementation of e-Mulakat and e-Peshi applications in Goa is also in final stage and planning to start soon.

Benefits/ Advantages of the Initiatives :

- Facilitate easy Visitor Management & Grievance redressal.
- Data transfer and integration with Courts & Police applications

URL : <https://eprisons.nic.in>

**eProsecution** is a centralized application enabling an online communication platform between Department of Prosecution and Police Department for seeking legal opinions, scrutiny of draft charge-sheets, disposal of court cases etc. The application was initially implemented in Directorate of Prosecution Panaji in September 2020 and has been extended further to four more PP / APP offices in the State.

Benefits/ Advantages of the Initiatives :

- Online communication with Police Department and Prosecution on legal matters, drafting of Charge sheets etc.
- Real-time data view from State Police and District & lower courts

URL : <https://eprossecution.gov.in>

**eForensics** is an online forensics case registration system implemented in Forensic Science Laboratory (FSL) Verna, Goa since July 2018 and is a Part of the ICJS (Integrated Criminal Justice System). This application caters the need of ICJS by sharing the data captured at Forensic Science Laboratory. The FSL is the testing

laboratory to provide scientific support and services to the investigation of crime. CFSL undertakes the scientific analysis of crime exhibits referred by CBI, Delhi Police, Judiciary and Vigilance Departments of Ministries & Undertakings & State/Central Govt. Departments.

Benefits/ Advantages of the Initiatives :

- Automates workflow of forensics labs from registration to dispatch of reports.
- Data sharing with other pillars such as Police & Courts.

URL : <https://eforensics.gov.in>

### 5.39. Arms License Issuance System – ALIS (G2G)

ALIS is an Centralised Online System initiated by Ministry of Home Affairs (MHA) for issuing various Arms License related services like issuance of arms license, renewal of license, extension of area validity, Cancellation / Suspension / Revocation of arms license, endorsement of weapon in license, deletion of weapon in license, Sale / Transfer / Gift of weapons, acquisition of fire arms, issuance of duplicate license etc. The system provides services for Individual, Institution, Sports and Arms Dealers categories of applicants. The UIN (Unique Identification Number) is also generated by the system which is mandatory for uniquely identifying an Arms License holder in India. The system is implemented at District Collector Office North Goa, District Collector Office South Goa and State Home Department, Secretariat Goa.

Benefits/ Advantages of the Initiatives :

- Online application processing system for arms license related services to the applicants
- Centralized digital repository of Arms License holders
- Unique Identification of Arms license holders in the Country

URL : <https://ndal-alis.gov.in/>

### 5.40. Online Indian Citizenship (G2C)

A centralised workflow based Online Indian Citizenship application by Ministry of Home Affairs which facilitates submission of Indian Citizenship applications by the public, acceptance of applications, verification of documents and other processing till it's service granting.

The application has been implemented at District Collectorate North Goa, District Collectorate South Goa, Office of the Superintendent of Police North, Office of the Superintendent of Police South Goa and State Home Department Secretariat Goa.

Benefits/ Advantages of the Initiatives :

- Uniformity in processing of applications for Indian Citizenship
- Better monitoring and tracking of the cases - both from applicant and MHA
- Simpler, faster and transparent process of the applications for grant of Indian Citizenship

URL : <https://indiancitizenshiponline.nic.in>

### 5.41. Prior Reference Check – PRC (G2G)

PRC is an Centralised Online system for the background verification of foreign nationals who belong to PRC category, apply for visa in the Indian missions. Nationality verification system is a facility available in the PRC application for the verification of Indian citizenship of a person who is alleged to be an Indian national. This application is internal.

The PRC application has been implemented in Office of the Superintendent of Police South Goa, Office of the Superintendent of Police North Goa and State Home Department Secretariat Goa.

Benefits/ Advantages of the Initiatives :

- Background verification of foreign nationals belong to PRC categories.
- Better monitoring & tracking of PRC verification requests.
- Online transfer of cases for verification to various security agencies in the County.

## 5.42. PARIVESH

Pro-Active and Responsive facilitation by Interactive, Virtuous, and Environmental Single Window Hub (PARIVESH)

It is a Single-Window Integrated Environmental Management portal, developed in pursuance of the spirit of 'Digital India' and capturing the essence of Minimum Government and Maximum Governance.

Four types of clearances can be obtained using PARIVESH, i.e., Environmental Clearance (EC), Forest, Clearance (FC), Coastal Regulatory Zone (CRZ) clearance and Wildlife (WL) clearance

URL : <https://parivesh.nic.in>

## 5.43. Aadhaar Enabled Authentication Services through NIC AUA

NIC signed an agreement with UIDAI for Authentication User Agency/ Authentication Service Agency.

E-Governance applications can use Aadhaar based Demographic Authentication for matching Aadhaar number and the demographic attributes of a resident. e-Governance Applications can use Biometric Aadhaar Authentication system to authenticate residents using biometric attributes. E-Governance applications can use OTP Aadhaar Authentication system to authenticate residents through One Time-Password (OTP) which is delivered on resident's mobile number and/ or email address registered with UIDAI.

Central Government and State Government Ministries/ Departments/ Organisations who are getting IT services from NIC may become Sub AUA.



## 5.44. Concluding Remarks

NIC Goa has also implemented many high impact Central/State projects. Further NIC is committed to up scale their technological knowledge and ensure to provide reliable and long term sustainable technical solution to the various ICT Projects in State.

### Accolades :

- CSI NIHILENT Award in project category to e-Challan Payment Gateway in 2018.
- CSI SIG e-Governance Award of Excellence in State Project Category 2020.
- Gems of Digital India 2020 Award (Analyst's Choice) for excellence in e-Governance.
- Marriage Registration is First Application in NIC who has got the Quality Assurance Certificate

**For more information, please contact:**

**State Informatics Officer  
National Informatics Centre,  
Ministry of Electronics and IT,  
Goa State Centre,  
H Block, Paraiso-de-Goa,  
Porvorim, Bardez  
Goa 403521  
Phone: 0832 – 2410160, 2410816**