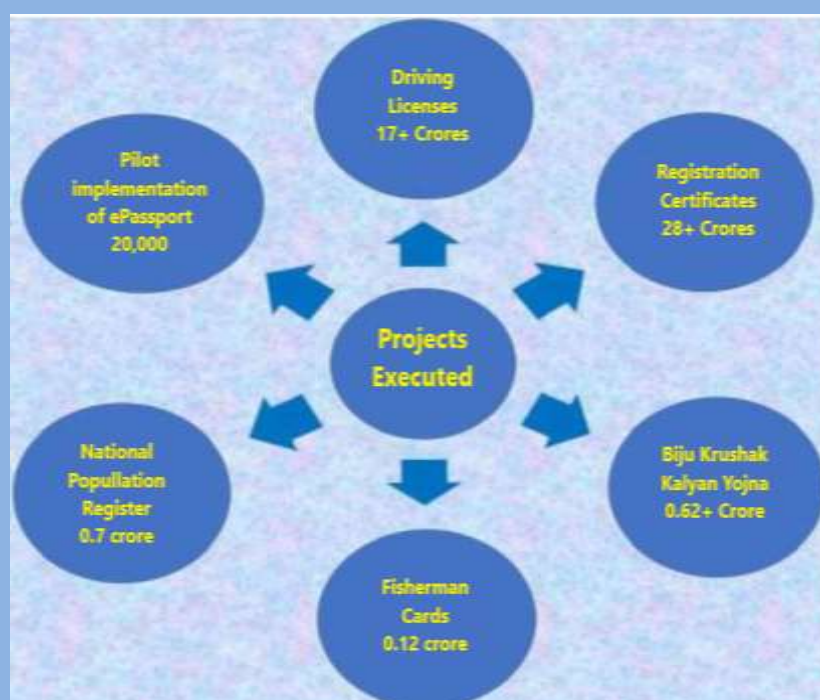# PAN India NIC Smart Card Technologies Services

Smart Card is a device with a microprocessor having an operating system (OS), internal memory that allows the card to store, process personal, demographic and biometric data. NIC is implementing Smart Card based projects since 2002 in India.

SCOSTA (Smart Card Operating System for Transport Application) Specifications

A need was felt to develop a home-grown OS to provide generic, interoperable and deployment-ready solutions for all kinds of Identity applications. So SCOSTA OS was developed in 2002. Initially, it was developed for MoRTH but subsequently many smart card identity solutions for other Ministries were also developed. The SCOSTA Specifications are published on **www.scosta.gov.in**.

Interoperability
Smart Card data format Standardization

Symmetric Key Infrastructure
Application standardization

SCOSTA

No Vendor Locking

Compliance ISO 7816, ISO 14443, ISO 9303

Projects executed by NIC

Pilot implementation of ePassport 20,000

Driving Licenses 17+ Crores

Registration Certificates 28+ Crores

Projects Executed

National Population Register 0.7 crore

Fisherman Cards 0.12 crore

Biju Krushak Kalyan Yojna 0.62+ Crore

UNION OF INDIA Driving Licence (AN) (NT)
AN01 20130003278
ASHRAF ALI
MOHAMMED ALI

Andaman & Nicobar Administration, Transport Department (AN) (NT)
Certificate of Registration
Reg. No. AN01J 8844 Date of Reg. 25/11/2014 Reg. Validity 24/11/2029
Chassis No. 600687B
Engine No. 600687B
Owner Name ABDUL SALEEM M K
Son/Daughter/Wife of HAMZA
Address SCHOOL LINE PORT BLAIR A N ISLANDS 993327444-744103
Fuel Used PETROL

- Data provided are as on date.
- Personal Information provided on cards is a dummy.

ePassport Project - MEA

ePassport for 4.5 crores citizens including Diplomats.

ePassport ensures :-

a) Inter-operability across nations, safety, security and prevents cloning.
b) A mechanism for electronic monitoring & border control of passengers.
c) Authenticity and integrity of e-Passport data and reader devices.

Next Generation proposed Electronic Identity (eId) Projects

1. Up gradation of SCOSTA-OS to SCOSTA- PKI (Public Key Infrastructure) to enable online authentication.
2. For the next generation upgrades of SCOSTA-OS certification, a new Smart Card compliance scheme will be notified with latest specifications.
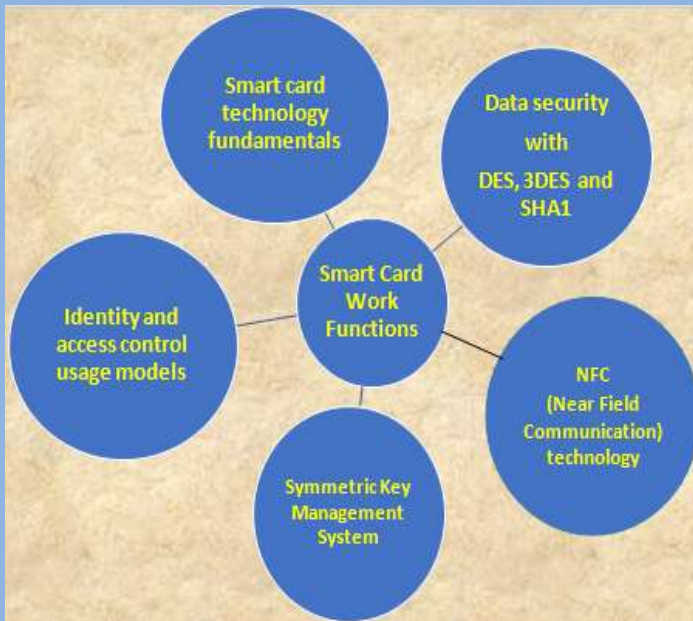
पासपोर्ट
PASSPORT

भारत गणराज्य
REPUBLIC OF INDIA

Services provided by Smart Card Technologies Division, NIC

Testing and Certification of SCOSTA/SCOSTA-CL for eGovernance Smart Card projects

- SCOSTA compliance testing is done to verify the compliance of the OS provided by the vendors as per SCOSTA specifications.
- A SCOSTA compliance Certification committee headed by DG NIC and members from STQC, CCA and NIC issues SCOSTA compliance Certificates to Smart Card Industry.
- SCOSTA certification is required for various smart card-based Id projects for the supply of smart cards.

Technologies used for developing various applications: -
.Net, Java, JNLP, SQL server, PostgreSql, Oracle, Android, C, C++.

Applications developed for various Ministries

Multi-functionality card
A single smart card that has the capability of providing role-based security support to multiple applications such as identity cards, health cards, canteen cards, Library cards, access control cards etc. can be loaded in a single card.

Key Management System (KMS)

- KMS refers to the management of cryptographic keys in a cryptosystem that deals with the generation, exchange, storage, use, destruction and replacement of keys. It enhances the security of the smart cards.
- NIC has developed expertise in KMS and has implemented KMS for various PAN India projects like DL/RC, National Population Register (NPR), Biju Krushak Kalyan Yojana (BKKY) etc.

Future Road Map

For a robust and enhanced security, the next generation eID documents including ePassport may be rolled out on Indian designed, developed and manufactured contactless chip along with upgraded operating system thereby saving considerable foreign exchange with the following inclusions under the Atamanirbhar Bharat Abhiyan.

- Encryption algorithms support like AES, RSA, ECC and Hashing algorithms support like SHA256 or SHA512
- Provide Active Authentication(AA)
- Provides Extended Access Control(EAC) along with PA/BAC

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