





Symmetric Key Infrastructure

Application standardization

Compliance ISO 7816, ISO

14443, ISO 9303

NIC Smart Card Technology Services

Interoperability

Smart Card data format

Standardization

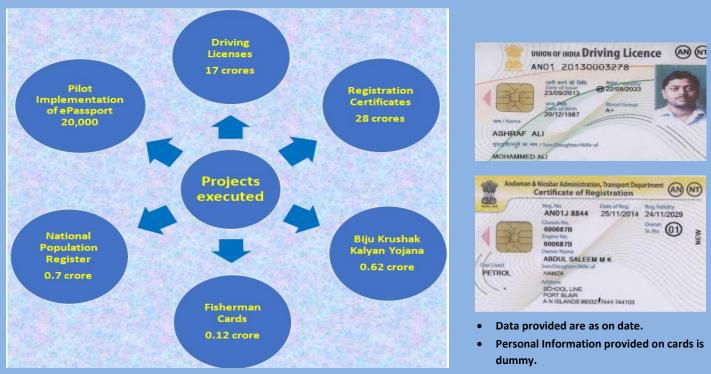
No Vendor Locking

Smart Card is a device with a microprocessor having operating system (OS), internal memory that allows the card to store, process personal, demographic and biometric data.

SCOSTA (Smart Card Operating System for Transport Application) Specifications

A need was felt to develop a homegrown OS to provide absolutely generic 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**.

Projects executed by NIC



Next Generation proposed Electronic Identity (eId) Projects

- 1. ePassport for 4.5 crores citizens. ePassport ensures :
 - a) Inter-operability across nations, safety, security and prevents cloning.
 - b) Mechanism for Electronic monitoring & border control of passengers.
 - c) Authenticity and integrity of e-Passport data and reader devices.
- 2. Upgradation of SCOSTA OS to SCOSTA- PKI (Public Key Infrastructure) to enable online authentication.
- 3. MHA identity card (3.5 lakhs) for secured physical access to authorized employees.
- 4. eHealth cards for Para-Military Forces(BSF) and their family members-12.5 lakhs.



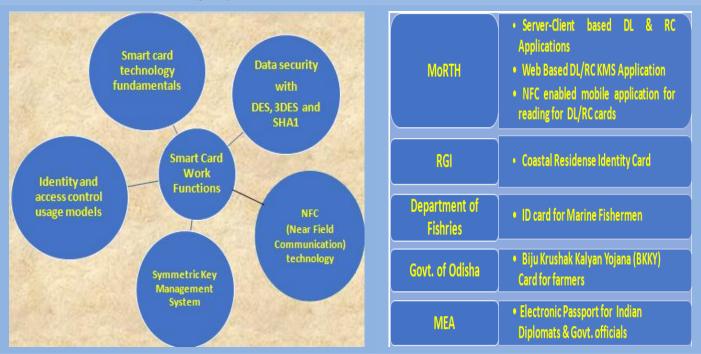
Services provided by Smart Card Technologies Division, NIC

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.
- 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.

HSM

A Hardware Security Module (HSM) provides secure key storage, fast access of master keys and cryptographic Operations within a tamper-resistant hardware device. NIC has expertise in developing smart card applications using HSM.

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