# Government expands PDS on Smart Card across India

*by S. Swarn*

After the success of its pilot smart card PDS projects in Haryana and Chandigarh, the Central government is planning to expand it to other states to eliminate duplicate and bogus ration cards.

Under the programme, the paper based ration cards have been replaced with smart cards. The shopkeepers have been provided with dealers cards.

## The pilot

The ration card data is first digitised and then field camps are organised to capture finger prints and photographs of card members. Different colour schemes have been assigned to identify BPL, APL or AAY categories. Entitlement and quantity drawn by the beneficiary during each transaction are also written on the card.

One smart card is also issued to each ration shop dealer - fair price shop - which contains registration/licensing details of the dealer, list of beneficiaries attached
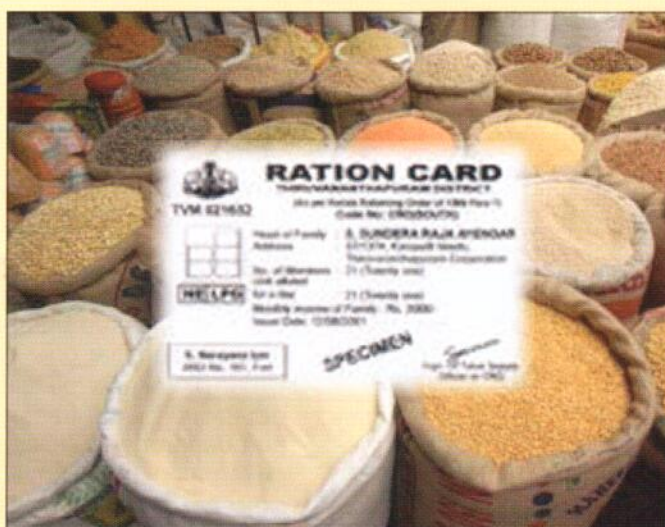


to the FPS, sale policy and price, stock and transaction details to know the stock balances at any point of time.

The point of sale (POS) terminal has dual smart card readers one for FPS dealer card and other for beneficiary card and a printer to print the receipts.

Bogus ration cards are causing a big problem in efficient distribution of subsidised foodgrains across the country.The government has detected crores of bogus ration cards in a nationwide drive.Besides, diversion of food from ration shops to open market has also

been widely reported from different parts of the country.

Seeing the success of the pilot project in three ration shops in Panchkula, near Chandigarh, the Haryana government is planning to implement it in four other blocks of the state before rolling it out in the entire state. In Chandigarh, the smart card system is in operation at 5 fair price shops.

The software application has been developed by the National Informatic, Centre (NIC).

## Other states emulate

Already several states

have decided to adopt the system. Chhattisgarh government has decided to adopt smart card based Public Distribution System to plug leakages in the system by identifying the beneficiaries through biometric data stored in the smart cards being used to deliver health insurance to the poor.

The state government has requested the labour ministry to create separate space for PDS data of the beneficiaries and a relevant application in the upgraded Rashtriya Swasthya Bima Yojna (RSBY) smart cards, which is being re-designed with double capacity.

"Transaction software for preparation of smart card should also include programming to ensure storage of PDS-related data like ration card number in the card," said Vikas Sheel, secretary of the state government's department of food, civil supplies and consumer protection, in a letter to the Centre.

The first phase of the project can be imple-

mented by next month in the state which has been widely hailed for using the global positioning system to ensure that subsidised ration reaches fair price shops.

"Its success could pave the way for wider usage of the RSBY platform, that is already available throughout the country, for PDS," director general of labour welfare Anil Swarup said.

Orissa government has a similar plan to target subsidies under the PDS which is plagued by massive leakages in most parts of the country.

"Orissa made enquiries for using RSBY for PDS at the recent national workshop of RSBY in Ranchi. It is also keen to use the platform, but is yet to move a formal proposal," Swarup said.

In the second phase, which can start only after the capacity of the RSBY card is doubled to 64 kb, even PDS entitlements can be stored on the smart card.

"This will require establishing linkages between existing RSBY beneficiary database and the ration card database, empanelment of FPS (fair price shops) and the issue of FPS key cards so that the RSBY card itself can be authenticated at the shop," Sheel said.

Once the process is complete, a simple swipe of the card at the PDS shop will allow the shopkeeper to verify the buyer's identity as well as entitlements. The shopkeeper will also be able to enter and store the details of the ration availed by the beneficiary for future reference.

Of the 2.4 million BPL families in Chhattisgarh, 1.38 million are enrolled in RSBY. The number of PDS beneficiaries is much larger at more than 3.6 million households because the state and the Centre use different parameters for poverty.

"Chhattisgarh government wants to extend RSBY benefits to all PDS beneficiaries by contributing from its own budget to cover families that are not entitled under the Central scheme," Swarup said.

The state is expected to soon make a formal proposal, which will then be taken up by the labour ministry. Smart cards are used to provide health insurance under RSBY to about 35 million people below the poverty line across the country.

The scheme is being slowly extended to a number of unorganised sectors to include domestic workers, coolies and street vendors. The government plans to make it available to 70 million families by the end of the 12th Five-Year Plan in 2017.

# Integrated transport network in Delhi proposed

The transport department in Delhi is looking into option of an integrated transport network that will connect the various transport modes in Delhi. The integration will cover buses, metro rail, autorickshaws and cycle-rickshaws, as well as rapid rail and monorail in the future.

The transport department is also looking at the option of providing a single-window ticketing system and mobile application to provide information on the timings and availability of various modes of transport. The government also plans to link all the modes through a common helpline number in future.

The plan is based on the Transit Oriented Development model of the Delhi Development Authority which have radius divided for the pedestrians, autos, buses and the cars along the Metro corridors.

The need for a better transport network in the city was stressed upon at a recent seminar on Urban Transport in Delhi organised by the transport department of Delhi government. The move is likely to benefit the pedestrians and also those using the various modes.

"The idea is that if one person gets out of the metro station and wants a cycle rickshaw or a bus to go to another location, he can easily hop on to a bus and reach the other destination," explained a transport department officer.

"It has been observed that several accidents on roads take place, because the transport modes are not integrated and the commuters have a tough time hopping from one mode to another," said Taj Hassan, special commissioner, Delhi Traffic Police.

Hassan said integrating the modes of transport will bring down the number of accidents.

The government also plans to have a single ticket for all the modes. "Like the Metro smart card, a single smart card will link all the modes. Besides being economical, it will make travel more convenient," said the officer.

The transport department also plans to get away with the multiple call centres and complaint windows. "We intend to have one call centre to cater to all kinds of complaints.

"Delhi will have an excellent transport mechanism in times to come," said Delhi transport minister Ramakant Goswami.

# RFID market in India to grow 25% CAGR till 2018

Increasing demand for supply chain management, growing organised retail market and increasing government projects are driving the growth of RFID Industry in India, according to a recently published report by techSci Research's, India RFID Market Forecast & Opportunities, 2018'.

Radio Frequency Identification (RFID) is an automatic identification process that provides a unique identification to objects. The rapidly increasing industrialisation and commercialisation is invigorating the companies to invest in RFID to enhance their supply chain processes as it enables scanning of multiple items at once and line of sight advantages.

The major factors driving the market for RFID include increased usage in the large scale government projects such as "Aadhaar" — unique identification programme - metro rail and retail industry in India.

The RFID market in India is expected to grow at the CAGR of around 25% during 2013-2018. The usage of RFID technology is rapidly increasing across the country and it is growing extensively in the regions where industrial and manufacturing development are more prominent.

Maharashtra and Gujarat in western region, Andhra Pradesh, Karnataka and Tamil Nadu in Southern region are the markets accounting for high usage of RFID in India.

"The growth of organised retail, automotive, health care and public transit is expected to contribute significantly to the demand for RFID in India. In addition, the RFID technology is also expected to be deployed in new emerging applications such as animal tracking, libraries, and precious ornaments etc. The growth of companies operating in these sectors along with the foray of multinational companies in the market would add to the growth of RFID in India", said Mr Karan Chechi, Research Director with TechSci Research, a research based global management consulting firm.

"India RFID Market Forecast & Opportunities, 2018" has evaluated the future growth potential of India's RFID market and provides statistics and information on market structure and trends. The report includes RFIDs projections and demand forecasting. The report is intended to provide cutting-edge market intelligence and help decision makers to take sound investment evaluation. Besides, the report also identifies and analyses the emerging trends along with essential drivers, challenges and opportunities available in RFID market in India.

# Indian healthcare sector to create huge demand for smart cards

IMARC Group, one of the world's leading research and advisory firms, in its latest report on the Indian smart card industry, expects India's healthcare sector to create a total demand of 34 million smart cards during 2013-2018 (The figure does not seem to correct. The number of RSBY card itself has crossed 35 million now. — Editor)

According to the report, the application of smart card technology can protect patient records and significantly reduce paper work. Smart cards can hold encrypted patient information and use a digital signature or a biometric template to reduce ambiguity about the cardholder's identification.

The usage of smart cards can also reduce the occurrence of fraud in health benefit claims — a significant issue for both private and public health insurance firms.

Findings from the report suggest that the bulk of the demand in the healthcare sector currently comes from the "Rashtriya Swasthaya Bima Yojna".

The Rashtriya Swasthaya Bima Yojna (RSBY) is a Central Government's health insurance scheme for the unorganised sector workers belonging to the BPL (below poverty line) category and their family members.

The RSBY became operational from April 2008 and estimates from the report suggest that as on April 3, 2013, 34.4 million smart cards had already been issued.

Apart from the RSBY, the report also expects a number of other healthcare providers to introduce smart cards in the coming years.

Government healthcare providers such as Ex-Servicemen Contributory Health Scheme (ECHS), Central Government Health Scheme (CGHS), etc are already providing smart cards to their members.

Although most government and private health insurance providers are currently providing non-smart card based health cards to their members, we expect most of them to adopt smart card technology in the short and medium terms.

# Dr. N. Seshagiri, a great visionary is dead

Dr. N. Seshagiri, Founder Director General, National Informatics Centre (NIC) and Former Special Secretary to the Government of India in the Department of Communications and Information Technology, is no more. Born on 10th May, 1940, he died on 26th May, 2013.

After his Ph.D at Indian Institute of Science, Bangalore in Microwave Telecommunication Engineering, Dr. Seshagiri had moved to Tata Institute of Fundamental Research (TIFR) in 1966 and worked on satellite Communications and space-craft design, which earned him the prestigious Vikram Sarabha Award for his work on "Optimal design simulation of low energy consumption in space-craft design."

Prof. M.G.K. Menon, who was Director of TIFR, when government of India announced setting up of Electronics Commission in February 1971, and was appointed the first Chairman of Electronics Commission and Secretary in the Department of Electronics (DoE).

Seeing immense intelectual potential in Dr. Seshagiri, Prof. Menon brought him to Electronics Commission as Director of Information Planning Analysis Group (IPAG), which was created to evolve policy and planning for introduction of information technology in the country.

I met Seshagiri in early 1972 in Electronics Commission's office at Air India Building, Nariman Point, Mumbai for the first time, after he rang me up to see him. In our first meeting itself we became close to each other and remained so and worked together.

Electronics Today published several Analysis and Technical reports prepared by the IPAG during 1972-73, in abridged version to reach them to the industry. Electronics - Information & Planning - was brought out by IPAG much later in October 1973. But even after this publication came out, Electronics Today continued publishing theses reports in the abridged form.

For me Seshagiri was a guide, teacher and Marg-Darshak. Under his guidance I organized a number of International conferences, some of them sponsored by UNESCO, UNIDO, etc. on topics, which were much ahead of their time. And when I launched Electronics Review in 1972, India's first and the only fortnightly Newspaper, Dr. Seshagiri used to regularly contribute some "juicy" news items. Electronics Reviews ceased its publication in 1975.

Towards the latter half of 1976, Electronics Commission decided to retain policy framing and its implementation related work with the Department of Electronics, and to provide special impetus to the Informatics led improvements in the decision making process of various Government Departments / Ministries, decided to set up National Informatics Centre (NIC) and Dr. Seshagiri was entrusted with independent responsibility of its first Executive Director.
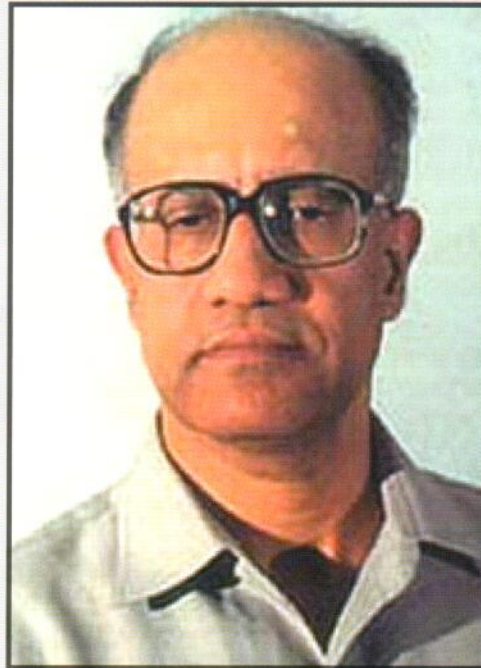
Dr. Seshagiri, a great visionary, was always ahead of his time, and pioneered the growth of IT Industry in India. As the architect of the nationwide computer network (NICNET), Dr. Seshaigiri drafted the software and hardware policies that revolutionized information technology (IT) in the country. He was instrumental in setting up the DISNIC Programme in the country to usher in the ICT revolution in 520+districts in 1987.

In 1998, under the Chirmanship of Prof. MGK Menon, he was the Member-Convenor of the prestigious National Task Force on IT which drafted the national IT policy with 108 recommendations to "transform India into a global software Technology Parks of India, which led to the emergence of Indian IT multinationals like Infosys and Wipro.

Dr. Seshagiri not only shaped computerization policies but brought to reality the software exports and systems manufacturing industry in India. Dr. Seshagiri laid great importance on inducting ICT in governance across the country. What we see as E-Governance today is the outcome of the vision and hard work put in by Dr. Seshagiri through the decades of 80s and 90s.

During his 25-year leadership of NIC, he groomed a generation of scientists, engineers and technocrats to provide leadership in E-Governance across the country.

He authored over 20 books and more than 100 research papers. His latest contribution, 27th volume of Rural Survey of India was published in March, 2013.

Dr. Seshagiri was conferred Padma Bhushan by Hon'ble President of India. He was also conferred numerous other awards like Vikram Sarabhai award, O P Bhasin award, Asiad Jyoti award, Karnataka Rajya-Utsav Jyoti award, to name a few. He served as Professor Emeritus at IISc - Bangalore after his retirement and offered technical consultancy in frontier areas of IT.

# RFID solution enables safer usage of endoscopes

The University of Pennsylvania Hospital is improving patient safety and overall asset accountability with a new RFID solution designed to prevent the spread of infection through flexible endoscopes.

In addition, the system tracks and timestamps an endoscope's movements from storage and usage to re-processing and back into storage. The iRIScope is manufactured by Mobile Aspects, which received a patent for its technology this month.

Ever since Hospital at the University of Pennsylvania installed the solution, hospital personnel have witnessed overall improvements in accountability for correlating scope to patient usage, high level disinfection process, and tracking the efficacy of automatic endoscope reprocessor chemicals.

Flexible endoscope reprocessing has been cited the last four years in the Top 10 Health Technology Hazards list published by the ECRI Institute. iRIScope prevents and identifies cross-contamination to reduce the risk for proliferation and transmission of infectious diseases.

If a protocol compliance breach occurs, an unused scope needs to be re-processed, or a scope has been missing for 24 hours, alerts go off. With the Red Alert feature, the cabinet that houses the breached scope turns red, locks, and sends an alert to designated personnel.

With the solution, washable RFID tags are attached to endoscopes and hung in the iRIScope cabinet. A user scans an ID badge and the patient barcode to open unlocked doors and remove a scope. RFID readers in the cabinet identify which scope was removed, while the software timestamps and electronically documented the scope's removal, along with which procedure it is being used for and who took it.

When a procedure is completed, the scope needs to be meticulously cleaned and re-processed. The software timestamps and electronically documents each movement associated with the reprocessing.

# Global automated fingerprint identification system market forecast

The Global Automated Fingerprint Identification System market to grow at a CAGR of 19.71% over the period 2012-2016. One of the key factors contributing to this market growth is the increased acceptance of e-governance projects.

The Global Automated Fingerprint Identification System has also been witnessing the availability of customised automated fingerprint identification system applications. However, the need for higher standardisation and compatibility could pose a challenge to the growth of this market.

The forecast on Global Automated Fingerprint Identification System market 2012-2016, has been prepared based on an in-depth market analysis with inputs from industry experts. The report covers the global automated fingerprint Identification System market in the Americas, the EMEA, and the APAC regions, its market landscape, and growth prospects in the coming years. The report also includes a discussion of the key vendors operating in this market. The key vendors dominating this market space include Morpho SA, 3M Cogent Inc., NEC Corp.

The other vendors mentioned in the report are AFIX Technologies Inc., East Shore Technologies, Fujistsu Ltd., Papillon Systems Ltd., Sonda Technologies, and Suprema Inc.

# Smart card and IC shipments grown to U$2.69bn

According to ABI Research's Smart Card & Secure ICs Research Service, in 2012, 7.95 billion smart cards and 7.99 billion ICs were shipped, representing a year-on-year increase of 9.4% and 12%, respectively,

The research firm says IC revenues hit a new high, with NFC RF and secure elements providing a more established proportion of IC revenues, which totalled U$2.69bn in 2012.

The top four smart card vendors remain unchanged with Gemalto, Oberthur, G&D, and Morpho maintaining their leading market share positions, based on units.

ABI Research says Morpho was the highest climber in the government ID market, gaining an extra 3% share compared to 2011. Oberthur dipped slightly and dropped one position, while Gemalto lost a little of its share but still maintained its number one position. G&D also posted slightly lower shipments than 2011.

"NFC is going to become an increasingly important entity within the overall smart card and IC business," says research analyst Phil Sealy. "It will become its own standalone core market within the next two years."

# Overwhelming response to SmartCards Expo 2013

SmartCards Expo 2013, co-located with E-Securty Exo 2013, RFidIndia Expo 2013, BiometricsIndia Expo 2013, e-PaymentsIndia Expo 2013, and IndiaMobile Forum, 2013 has received overwhelming response. The 15th Edition of SmartCards Expo 2013 will be held at Pragati Maidan, New Delhi, India on October 16-18, 2013.

About 175 companies from about 20 countries have already booked their stalls to display a wide range of products/ solutions in Smart Card, RFID, Biometrics, e-Payments, Mobile payment and related technologies.

SmartCards Expo has played a pioneering role in promoting AIDC technologies in India by creating awareness about smart card and allied technologies such as RFID, Biometrics and payments.

Currently, Smart card applications, in conjunction with mobile communications, biometrics, RFID, e-Payments and Mobile Payments are being implemented in India in a big way.

## Smart Card projects

Several socio-economic smart card projects worth trillion of rupees, such as: Telecommunications (SIM cards, Mobile payments), Driving license, Vehicle Registration, e-Passport , e-Governance (NREGA - National Rural Employment Guarantee Act -

RSBY - Rashtriya Swasthya Bima Yojana, Public Distribution



System (PDS),Metro Rail Projects , Ex-servicemen Contributory Health Schemes, Loyalty, Medical Records, Transit, e-Ticketing, Toll Collection, Automatic Fare Collection , and many others.

According to a recent RNCOS' Smart Card Market Forecast to 2014, "India, with over one billion population and increasing modern application areas, is emerging as one of the world's fastest growing smart card markets. Smart card market in India is anticipated to reach $1 billion (R6,000 crore) by 2015, growing at CAGR of around 15% during 2011-2014.

## Biometrics

India is already acknowledged as world's largest biometrics market today. The world's largest biometrics project - Unique Identity number (UID) - embedded with Biometrics features, have already issued to more than 400 million people by Unique Identity Authority of India

(UIDAI), who is targeting to issue another 200 million by next year.

Another 600 million NPR (National Population Registert) cards being issued by the Registrar General of India and Census Commissioner, will also contain biometrics of the card holders.

## RFID applications

The RFID market in India is rapidly opening up. The government of India has recently amended its fiscal policy to allow Retail multinational giants to operate in the country. MNCs, like Walmart, TESCO, Carrefour etc. have already evinced interest to enter India's retail market.

Other RFID applications already in vogue on large scale, include: toll collection, vehicle tracking, bus tracking, Railway wagon tracking, Apparel Tracking, "hands-free" RFID ticketing solution for a sporting event, Pharmacuticals, animal tracking, Manufacturing, Wireless Yard Management System, Real-Time WIP Tracking System for electronic component product manufacturing.

## Conferences

Concurrently with the exhibition, this year, two International Conferences have been finalised to focus on Smart Cards technology

and its applications. These are: Smart Card Manufacture in India; and Multiapplications on ID Card.

The International Conference on Multiapplications on ID Card - opportunity and challenges will be organised on October 16, 2013, and International Conference on Smart Card Manufacturing in India - Prospects and Challenges on October 17,2013.

Electronics Today had organised the 1st International Conference on Multi-application Smart Cards in 2004 when the implementation of Smart Card based National ID appeared round the corner. Unfortunately, a major project like National Population Register / National ID card,the largest project of its kind on earth, approved in principal by the Indian government more than a decade ago, and in limelight since then, is mired in controversies, indecision and confusion.

Electronics Today, therefore decided to bring this topic in focus once again for free and frank but lively discussions, aiming to brainstorm on security issues, challenges and the way forward for such initiatives. There has been some attempts in the past to create a multiapplication smart card but different challenges created bottlenecks to make this a success. Details about these two Conferences are published in call for papers published elsewhere in this issue.

# Call for Papers

Pragati Maidan, New Delhi, India   October 16 - 18, 2013

# International Conference on "Multiapplications ID Card - opportunity and challenges"

Pragati Maidan, New Delhi
October 16, 2013

Electronics Today has played a pioneering role in promoting smart card technology and its applications in India since 1997, when it organised first time in India, an international conference on smart card technology and applicatios. SmartCards Expo, launched in 1999 has further accelerated the use of smart cards for diversified applications.

India has seen a promising growth in Smart Card applications during last few years. Government of India has launched a number of large projects using smart cards, such as Rashtriya Swasthya Bima Yojna (RSBY), Public Distribution System (PDS), Driving License, Vehicle Registration Certificates, Ex-servicemen Contributory Health Scheme and several projects using multiple IDs. These and several other non-smart card applications (Voter ID card, PAN card, etc.), are initiated, funded and implemented by the Central government and can be easily integrated on a single card. State governments are separately issuing ID cards for each of their welfare schemes, which can be embedded on a single smart card, ensuring that these IDs are not replicable (protection of identity), and access to information about individuals is limited.

Electronics Today organised the 1st International Conference on Multi-application Smart Cards in 2004 when the implementation of National ID on Smart Card appeared round the corner. Unfortunately, a major project like National Population Register / National ID card project, which is the largest project of its kind on earth, approved in principal by the Indian government and in limelight over a decade, is mired in controversies, indecision and confusion. This has also serious implications for smart card industry. Electronics Today, therefore decided to bring this topic in focus for free and frank but lively discussion on the topic, which aims to brainstorm on security issues, challenges and the way forward for this initiatives. There has been some attempts in the past to create a multiapplication smart card but different challenges created bottlenecks to make this a success.

The International Conference on "Multiapplications ID Card" will be held at Pragati Maidan, New Delhi on October 16, 2013 during SmartCards Expo 2013 and will discuss various technologies being used in several countries world over and socio-economic aspects. Papers are invited on any topic

## Deadlines:

| | |
|---|---|
| Receipt of half-page abstract: | August 20, 2013 |
| Notification of acceptance: | August 30, 2013 |
| Full paper : | Sept. 15, 2013 |

Please contact:
Chairman Conference Committee,
**SmartCards Expo 2013**
**Electronics Today,** 104, Andheri Industrial Estate,
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MO: +91 9820048178

**Electronics Today**
The Oldest Techno-Economics Electronic Monthly Journal and the Pioneer Electronic Exhibitions Organiser in India

# Call for Papers

# International Conference on Smart Card Manufacturing in India – Prospects and Challenges

Pragati Maidan, New Delhi
October 17, 2013

Starting on a humble note with pilot projects in early 1990s and passing through a phase of mini projects, Smart Card applications in India have now proliferated into multiple large projects such as – SIM , Rashtriya Swasthya Bima Yojna (RSBY), Public Distribution System (PDS), Driving License, Vehicle Registration Certificates, Metro Rail Projects, Ex-servicemen Contributory Health Scheme, to name a few.

Major project like National Population Register/ National ID card, the largest project on earth, approved in principal by the Indian government and in limelight for over a decade, is mired in controversies, indecision and confused Government policies.

Riding on NPR / National ID Card are other applications such as Payments/Finance and several other public and private initiatives in the country in the field. According to IMARC Group, "India's market for smart cards is forecast to generate about US$ 1 billion in revenues by early 2015, a rise by 42 percent from 2011".

It is, therefore, the right moment for the policy makers, Industry and other stakeholders in the country to assess the prospects and identify challenges for the growth of Smart Cards industry. The conference will focus on topics like: Global Smart Card Manufacturing Scenario and technology trends; Indian Smart Card Manufacturing Scenario and future Roadmap; Policies and Financial Guidelines for strong Manufacturing Base in India; Production technologies for contact and contactless smart cards; Personalisation and printing of smart cards and non-card form factors; Green and eco-friendly materials and processes for card manufacturing; Reliability testing methods and equipment for chip modules, inlays, inlets and contactless and dual-interface cards; New technologies and materials for card body substrates and films; Display modules, panels and related technologies for smart cards; Keypads, switches, biometric sensors and other I/O devices for smart cards; Chip Security - Hardware and Software trends and many other relevant topics.

The Conference aims to have a lively, interactive and informative sessions. We invite Papers on above and any other related topics.

**Deadlines:**

Receipt of half-page abstract:    August 20, 2013
Notification of acceptance:    August 30, 2013
Full paper :    Sept. 15, 2013

# Aadhaar facing tough fight from Europay, Mastercard & Visa

Amid an alarming rise in credit card frauds, data thefts and card cloning, a group of bankers will decide in a month the appropriate payment technology for the Indian banking system and retail consumers.

If the group votes for EMV — an internationally accepted technology standard for authenticating credit card, debit card and ATM transactions — Aadhaar, which is comparatively untested and follows a different technology, may face an uncertain future. EMV is a joint initiative between Europay, Mastercard and Visa — the world's

leading payments service providers.

Credit and debit cards that are based on EMV have the card and CVC numbers, which are the key to any electronic transaction, hidden or encrypted. Since encrypted data reduces the risk of cloning or skimming at ATMs and merchant outlets, some of the private banks have started upgrading their systems to EMV standards following recent card frauds.

But, if the group, constituted by the Reserve Bank of India, prefers Aadhaar, banks will have

to change their systems, procure biometric machines and prepare for different security standards.

Bankers, however, are reluctant to spell out their stand openly because the government thinks Aadhaar can be a game changer in disbursing subsidies to people in far-flung regions.

Besides, banks, particularly the state-owned lenders, are unwilling to take on the Unique Identification Authority of India (UIDAI), the state-owned agency that issues the 12-digit Aadhaar numbers.

# HID receives US patents for new gesture-based access control

The U.S. Patent and Trademark Office has granted several patents for HID Global's gesture-based access control methods.

HID's gesture-based solutions uses 3D motion sequences to ensure privacy, security and convenience when using RFID-based devices like smart cards and NFC-enabled smart phones. The latest patent additions joins HID Global's existing IP portfolio of more than 1,000 pending and issued patents.

The company's newest solutions enable the user to define a series of hand

motion sequences or gestures as the control operation and authenticating factor for an RFID-based device.

HID maintains that the addition of a gesture or motion utility significantly reduces the prospect of a rogue device covertly stealing the user's RFID credential in what's called a "bump and clone" attack.

HID's gesture-based solution opens new possibilities for authentication especially when used in conjunction with NFC-enabled mobile phones. Additionally, users can define gesture-

based passwords, easily adding another factor of authentication to a phone-based transaction.

In addition to recognising 3D motions (left, right, forward and backward), HID's user-defined, gesture-based passwords can also work in a two-dimensional capacity similar to that of a combination lock.

Actions that can be undertaken using the gesture solution include unlocking or locking apps or physical doors, or allow the user to discretely send an emergency signal at the time of transaction.

# HC stays TN's smart-card DL project

Madras High Court has stayed a Tamil Nadu Government's tender notification and multi-crore contract for issuance of smart cards for driving licences and vehicle registration certificates, which allegedly has caused a loss of over Rs 96 crore to the state exchequer. Passing interim orders on a petition by Noida-based Smart Chip Ltd, whose bid was rejected, challenging the selection process, Justice K K Sasidharan stayed all further proceedings pursuant to the June 28, 2010 tender notification and April 30, 2013 contract awarding the project to Bon Ton Softwares(P) Ltd, Chennai until further orders. The Judge posted the matter for further hearing to July 22.

The petitioner firm submitted that the Transport Department issued a tender notification for supply of the Smart Cards in 58 Regional Transport offices and 49 unit offices on Build,Operate,Own and Transfer (BOOT) basis. The company submitted though it quoted Rs 197.5 crores, the project was awarded to city-based Bon Ton Softwares(P) Ltd., which allegedly quoted Rs. 389.80 crores and after negotiations accepted to implement the project at 293.7 crores. The petitioner contended that by rejecting its bid, a heavy loss had been caused to public Exchequer to the tune of Rs 96.21 crores.

# Worldwide security market to grow at 8.7% in 2013 — Gartner

As companies continue to expand the technologies they use to improve their overall security, the worldwide security technology and services market is forecast to reach $67.2 billion in 2013, up 8.7 % from $61.8 billion in 2012, according to Gartner, Inc. The market is expected to grow to more than $86 billion in 2016.

"With security being one of the top IT concern areas, the prospect of strong continued growth is assured," said Ruggero Contu, research director at Gartner. "The consistent increases in the complexity and volume of targeted attacks, coupled with the necessity of companies to address regulatory or compliance-related issues continue to support healthy security market growth."

Gartner analysts see three main trends shaping the security market moving forward — mobile security, big data and advanced targeted attacks.

Bring your own device (BYOD) is a megatrend that will have a far-reaching influence on the entire security industry. Changes in how security addresses BYOD leaves several opportunities for technology service providers (TSPs).

Firstly, with the shift from device security to app/data security there is a chance for some security TSPs to capture endpoint protection budgets. Secondly, since some

BYOD projects are centred on the productivity gains of one to two apps, there could be buying centres adding security outside of traditional information technology centres. Finally, being able to understand the device type and how your users are computing today is just as important as who they are.

An opportunity exists for those able to determine that context, and provide it for other points of influence, such as the network or applications.

The amount of data required for information security to effectively detect advanced attacks and, at the same time, support new business initiatives, will grow rapidly over the next five years. This growth presents unique challenges when looking for patterns of potential risk across diverse data sources. However, big data, in and of itself, is not the goal. Delivering risk-prioritised actionable insight is.

"To support the growing need for security analytics, changes in information security people, technologies, integration methods and processes will be required, including security data warehousing and analytics capabilities, and an emerging role for security data analysts within leading-edge enterprise information security organisations," said Eric Ahlm, research director at Gartner.

When examining the advanced targeted attack (ATA), and the new methods being used to breach today's security controls, it can be distilled to a basic understanding. Attackers, especially those who have significant financial motivation, have devised effective attack strategies centred on penetrating some of the most commonly deployed security controls (largely signature-based antivirus and signature-based intrusion prevention), most often by using custom or dynamically generated malware for

the initial breach and data-gathering phase.

Advanced attackers are now capable of maintaining footholds inside an organisation once they successfully breach security controls by actively looking for ways to remain persistent on the target organisation's internal network. They do it either through the use of malware or, even if the malware is detected and removed, via postmalware use of user credentials gathered during the period of time the malware was active.

They then change their tactics to secondary attack strategies as necessary, looking for other ways around any internal security controls in the event they lose their initial attack foothold.

"Mitigating the threat from ATAs requires a defence-in-depth strategy across multiple security controls," said Lawrence Pingree, research director at Gartner.

"Enterprises should employ a defence-in-depth, layered approach model. Organisations must continue to set the security bar higher, reaching beyond many of the existing security and compliance mandates in order to either prevent or detect these newly emergent attacks and persistent penetration strategies. This layered approach is typical of many enterprise organisations and is often managed in independent ways to accomplish stated security goals, namely, detect, prevent, respond and eliminate," he added.

# Smart Card Alliance publishes white paper on smart cards and NSTIC

Smart Card Alliance, a not-for-profit, multi-industry association working to stimulate the understanding, adoption, use and widespread application of smart card technology, has developed a new white paper focused on smart card technology and strong credentials within the National Strategy for Trusted Identities in Cyberspace (NSTIC).

According to the Alliance, as a group, it is promoting the adoption of the NSTIC framework, saying that it strongly agrees with the use of federal, state and local government initiatives to accelerate the development of an identity ecosystem. At the same time, according to the Alliance, existing procedures, standards and technology should be leveraged.

The NSTIC is a White House initiative to improve on the credentials used to access the internet and to authenticate identities online. Specifically, the initiative proposes a marketplace that allows people to choose among multiple identity providers, both private and public, who can issue trusted credentials.

The newly-published white paper reviews the NSTIC initiatives, provides an overview of levels of assurance and discusses how smart card technology can provide the advanced credentialing capabilities needed to enable high assurance in the ecosystem.

"While the details of the NSTIC identity ecosystem are still being defined, smart card technology provides a secure flexible solution and is the best choice for higher assurance levels," says the Alliance.

The Smart Card Alliance Identity Council announced early this year that 2013 would be centred around a focus on providing guidance and leading practices for mobile identity credentialing and the NSTIC.

"As government and enterprises look at new approaches to identity such as with the secure online identities and mobile credentialing — the Identity Council plays the important role of providing guidance on how to choose the applicable technology to ensure identities are trusted, private and secure," Randy Vanderhoof, executive director of the Smart Card Alliance said.

# Iris recognition not affected by ageing: NIST IREX study

According to a fresh NIST IREX VI study, Irises do not deteriorate enough to affect biometric identification. NIST says, work was conducted to determine whether iris recognition accuracy decreases with time lapsed between enrolment and later recognition.

The study looked to draw conclusions for a healthy population, arguing that "medical conditions and injuries can rapidly and severely affect recognition, so these are out of scope."

"Using two large operation datasets, we find no evidence of a widespread iris ageing affect," the report notes. "Specifically, the population statistics (mean and variance) are constant over periods of up to nine years."

A widely-publicised report from 2012 from the University of Notre Dame which found that iris recognition was susceptible to ageing affecting the recognition process, gets particular mention in the report, as NIST's findings challenge the University's report.

"We show that template ageing reported in the Notre Dame studies is largely due to systematic dilation change over the collection period. Pupil dilation varies under environmental and several biological influences, with variations occurring on timescales ranging from below one second up to several decades. Our data suggests that the natural construction of pupil size over decades does not necessitate re-enrollment of a well enrolled iris."

The NIST study looked at 7876 records from a registered traveller deployment system, with use of the system on forty or more occasions over a period 4-9 years.

IREX, which stands for the Iris Exchange Programme, was established by NIST in 2008 and has been conducting studies and measuring the efficacy of algorithms for iris recognition systems ever since.

The new report, available on the NIST website, also includes technical considerations for organisations interested in ageing studies and includes a recommendation that ageing studies should adopt the tight image acquisition controls used in many opthalmalogical studies.

NIST has had a strong focus on iris as of late. Reported previously, recently NIST delivered a new publication for Personal Identity Verification cards, which now adds iris images and on-card fingerprint comparison as options for compliant cards.

## Smartcards / Biometrics Briefings

### Proposal for universal biometric verification in Indian Medical colleges

The administration of the Ganesh Shanker Vidyarthi Memorial Medical College, Kampur has proposed to the director general of medical education to introduced biometric verification across the country's medical education institutions to ensure that students are who they say they are. This was after the college discovered the presence of 'impostors' at the school.In March this year, the school discovered three students who were not present for entrance exams. Someone else came to write the test for them.If the director general approves the proposal and moves ahead with the biometric integration, students will have to go through a biometric verification process throughout their time at the medical colleges, but also during admissions.

### Biometric verification for SIM cards

Like in several other countries, in India the Ministry of Home Affairs has asked the Telecoms department to examine the feasibility of a mandate to verify SIM card sales with biometrics. The home ministry, which made the DoT directive, has also suggested that the department should maintain a database of biometric information from SIM card sales, and link it into the National Intelligence Grid. The DoT had previously made physical verification mandatory, though there are increasing reports to suggest it is has little effect. However, it is not just India that's looking to biometric verification for SIM card sales. Early this year, Ministry of the Interior, in Pakistan ordered the Pakistan Telecommunication Authority to stop all cellular mobile operators from selling new SIMS and withhold the stock of SIMS from all sales channels. The Nigerian Communications Commission has also recently spearheaded a similar system.

### Meghalaya govt suspends Aadhaar, NRP enrolment

The Meghalaya government has suspended biometric enrolment following the disruptions of National Population Register camps throughout the Northern Indian state capital. The Khasi Students' Union had asked to suspend enrolment as the state needs more adequate mechanisms in place to control influx. "Our demand from the State government is to stop this biometric enrolment and implementation of Aadhaar," KSU supremo Daniel Khyriem. "Amidst our focus on the need to have strong mechanisms to check influx, this enrolment will defeat the purpose of checking the menace of influx in the state." Evidently, the student group has now taken action."We have decided to keep the NPR biometric enrolment on hold after the Khasi Students' Union activists disrupted the NPR enrolment camps in the state capital," the principal secretary incharge of census operations and NPR, Peter Ingty said.

### Mauritius to introduce biometric ID cards

The Mauritius Government is set to issue new biometric smart ID cards, which will cost the country roughly $40 million.Set to be issued in September 2013, the smart cards are seen as a way to increase security and improve public services for Mauritians as well as quell fraud.The new ID cards will include an electronic chip containing biometric information, and will be issued to Mauritians over the age of 18. The entire programme is targeted to be completed by 2014, and nearly 890,000 cards will be issued. The government has awarded the Singapore Immigration Checkpoints Authority the contract for processing these new ID cards..

### Gemalto solution for biometric smart card tech for micro-banking in Bangladesh

Gemalto is providing a smart card solution to a micro-banking project in Bangladesh.Gemalto will deliver the smart card technology to Dipon Consultancy Services Ltd. (DCSL), which is implementing the project in collaboration with Prime Bank Limited. The programme, named Prime Cash, represents over 76% of the country's 150 million population and aims to provide secure access to banking services for people with limited or no access to banking services in both rural and urban areas in Bangladesh. The Gemalto smart cards contain an embedded software application that securely stores the holder's facial image and fingerprint data captured upon enrolment and user transactions are validated using biometric authentication. The Gemalto solution facilitates daily life financial services, such as account opening, deposit, withdrawal, transfer, loan repayment and remittances. DCSL has already delivered 200,000 cards to end users.

## Smartcards / Biometrics Briefings

### Toshiba launches NFC LSI for mobile payments

Toshiba Corporation has launched an NFC controller LSI (CLF[2]) "T6NE2XBG" for secure mobile payments via proximity wireless communication. Mass production is scheduled to start in October. The market for mobile payments, using smartphones and other mobile devices in transactions, is growing. The T6NE2XBG enables multiple concurrent connections with three different secure elements (SE[3]), allowing manufacturers to design NFC-enabled applications before the SE for the transaction system is determined.

### FIME, first lab to achieve EMVCo qualification in US

FIME America has become the first laboratory to achieve test bench qualification for EMVCo Contactless Card Level 1 in USA, authorising the advanced testing provider to offer contactless card level 1 testing services for EMVCo members. The laboratory will service the needs of the United States market, as well as customers based in Canada and Latin America. EMVCo is the EMV standard body for credit and debit payment cards based on chip card technology. It has an established certification programme to confirm products meet the requirements outlined in the EMV Specifications. This promotes increased levels of confidence that EMV products will perform as intended and ensure interoperability between payment devices.This announcement follows the opening of FIME's U.S. office in San Francisco earlier this year.

### VeriFone completes acquisition of EFTPOS New Zealand

VeriFone Systems, Inc., announced that it has completed the acquisition of EFTPOS New Zealand Ltd. (ENZ) from ANZ Bank New Zealand Limited (ANZ NZ). ENZ will continue to operate under its current branding, EFTPOS New Zealand, as a VeriFone company. It is the largest EFTPOS solutions and payments provider in New Zealand, directly serving more than 40,000 merchant customers and offering customers an end-to-end payment solution, including card acceptance devices, software, services and processing. Earlier this year, VeriFone announced it had completed the acquisition of the Sektor Payments operation of the Sektor Group of New Zealand. Sektor Payments is now operating as VeriFone New Zealand, which provides its New Zealand distribution partners greater access to VeriFone's expertise, advanced solutions and services that add value to both merchants and consumers.As a global supplier of payment solutions, VeriFone operates in more than 110 countries with a worldwide workforce of more than 5,000 employees. VeriFone payment solutions are designed to meet the needs of merchants, processors, banks and acquirers in both developed and emerging economies worldwide.

### China blocks MasterCard processing in transactions

China has blocked MasterCard from processing credit card transactions in renminbi, raising concerns about Beijing's willingness to fully open up the sector after the World Trade Organisation found that it unfairly restricted foreign card companies. The Chinese central bank ordered last month that EPayLinks, an online payment platform, stop issuing renminbi-settled credit cards in partnership with MasterCard. The ruling by the People's Bank of China comes less than a year after the WTO declared that Beijing discriminated against foreign electronic payment providers by allowing UnionPay — the Chinese rival to MasterCard and Visa — to monopolise domestic renminbi-denominated transactions. China has said that it would study the WTO judgment and state-owned media have reported that Beijing might announce new rules for its domestic card market as soon as next month. China is among the world's fastest-growing credit card markets, with 46m cards issued in the country last year. MasterCard has predicted that China will overtake the US as the largest market for cards by 2020, when it is expected to have about 900m.

### Election Commission to use UID to check duplicity in electoral roll

The Election Commission will use Unique Identification Number (UID), being issued by the UIDAI to Indians, for checking duplication of voters in its electoral roll in Uttar Pradesh.The chief electoral office of UP has started collection of UID number of voters and updating its electoral roll database with them. Directorate of Census Operations (DCO) is collecting biometric details of people for National Population Register (NPR). The Government of India has directed DCO to complete the collection of biometric capture of photograph, finger prints and iris scan of both the eyes, being done in 38 districts at present, in the state by December 31.Three firms — Bharat Electronic Limited (BEL), Electronic Corporation of India Limited (ECIL) and ITI Limited — are collecting biometric details for DCO, which is uploading the details on the server of UIDAI. The checking of duplication of voters in the electoral roll would become easy once the UID of all the voters of UP is provided in the database.

### Evolis completes Indian acquisition

Evolis has finalised its acquisition of Rajpurohit Cardtec, which distributes its card printer solutions in India. This follows an agreement signed in October 2012, which saw Evolis agree to acquire 70% of Rajpurohit Cardtec, its long-standing distribution partner in India. Founded in 1985, Rajpurohit Cardtec saw sales of 497 million rupees (6.9 million euros) in the 2012/2013 financial year.Rajpurohit Cardtec is expected to contribute •2m to Evolis' consolidated sales in 2013. Evolis says the acquisition of Rajpurohit Cardtec, to be renamed Evolis India, reflects the group's vertical integration strategy, intended to boost the group's capacity to operate in a market with strong growth potential. The company adds: The Indian authorities are gradually deploying a series of projects to introduce decentralised technology card print equipment for driving licences, identity cards and health insurance cards. Demand for personalised cards is also growing in the traditional access control and identification markets and moving rapidly towards leisure solutions as well as more high-tech transportation and payment solutions."The integration of Rajpurohit's workforce into the Evolis Group will see the firm increase to 255 employees.

## RFID Briefings

### Ezetap launches 1st 'Made in India' mobile POS

On July 22, Ezetap launched the first domestically manufactured and globally certified mobile point of sale device, also known as debit or credit card swipe machine, for less than $50. According to Abhijit Bose, Co-Founder and CEO of Bangalore-based Ezetap, "Competing head-to-head against global payments companies using devices manufactured in China in the fast-growing Mobile Point-of-Sale market, the entire Ezetap solution from its card reader to service platform has been 100 per cent designed and developed in India. Over 80 per cent electronic devices required in India are imported and government has come out with hosts of incentive scheme and new policy to encourage domestic production of electronics goods. The solution consists of a card reader that can be plugged into any smart device or feature phone, and turned into a point of sale.

### New Embossing system from Datacard Group

Datacard Group, the world leader in secure ID and card personalization solutions, has announced their continued investment and expansion of its desktop card issuance product portfolio with the availability of the Datacard® CE840 instant issuance system. This new CE840™ system gives financial organizations, retail, government and other card issuing organizations the ability to issue secure, personalized cards on demand or in low-volume batches. Offering high-quality embossing and indenting up to 150 characters, the CE840™ system features magnetic stripe encoding and a single 100 card input hopper with locks to help ensure the security of the cards. In addition, it has optional features such as direct-to-card color printing and smart card personalization capability. Organizations can build a complete card issuance solution from Datacard Group by combining Datacard certified supplies and global services. The CE840 system also has multiple integration options that allow it to be implemented into new or existing card issuing environments, and can utilize desktop issuance software from Datacard Group for an intuitive interface to the printer. Currently, Datacard solutions issue millions of cards everyday worldwide and the company has thousands of instant issuance installations throughout the world, including both magnetic stripe programs as well as smart card programmes.

### Primacy card printers selected for the customisation of driver's licences in India

Evolis, European leader in the customisation of plastic cards, announced that it has been selected to customize drivers' licenses in Uttar Pradesh — India's most densely-populated state. The government in Uttar Pradesh has started issuing smart card drivers' licenses using the new-generation Primacy card printer. Over the coming months, almost 200 Evolis Primacy card printers will be deployed to issue instantly more than 10 million cards - a project that will take 5 years to complete. This major project being implemented by M-Technology, Pune, will be con-ducted in collaboration with Rajpurohit Cardtec Ltd, distribution partner to Evolis in India. Evolis has recently taken over Rajpurohit Cardtec Ltd as part of its vertical integration strategy, in order to take full advantage of the exciting potential presented by the Indian market.

### SMARTRAC wire embedding patent gets validation by China

SMARTRAC N.V., the leading developer, manufacturer, and supplier of RFID transponders and inlays, announced full validity and unrestricted confirmation of its patent CN 11 19 768 C by the Chinese Patent Re-examination Board (PRB). The confirmation follows a lengthy legal process in which market participants tried to challenge one of the patents related to the company's proprietary wire-embedding technology. Wire-embedding technology is the de facto standard for the manufacture of high-quality and high-security RFID inlays and transponders used in application fields such as e-passport and further areas where durability and reliability of the antenna and the inlay are key. SMARTRAC holds numerous patents related to its proprietary wire-embedding technology. Furthermore, the company has steadily increased the number of patents and patent applications in the course of time. At the end of 2012, SMARTRAC held more than 700 patents and patent applications for technology, equipment, and the production of RFID components. In addition to its Intellectual Property (IP), SMARTRAC also has extensive knowledge and experience in processing technologies such as wafer processing, assembly, chip module packaging capabilities, antenna-chip interconnecting technologies, and lamination.

### Airbus develops "FIND MY SUITCASE" App powered by RFID

Airbus is one of the original pioneers of RFID technology. The company's parent, European Aeronautic Defence and Space Co. (EADS), has at least 65 ongoing RFID projects. While most of the Airbus deployments are designed to help the company and its airline partners operate more efficiently, Airbus is trying to improve the customer experience as well. The company recently unveiled RFID-enabled luggage that interacts with an iPhone to help find misplaced bags. Airbus has developed Bag2Go in partnership with mobile carrier T-Mobile and German luggage maker Rimowa. An RFID chip inside the bag lets it work with the increasing number of automated airport and airline baggage-handling systems which can 'pair' smartchipped bagtags with your itinerary and frequent flyer number. A barcode on the bag's trip-specific label syncs it is against your iPhone and can be passed on to your airline booking. Each Bag2Go also relies on other location-based technologies such as GPS and a 2G-based cellular phone system to track the luggage along its route, including the iPhone app's 'Find My Bag' feature to locate bags that have gone missing in action.