www.ioirp.com

International Journal of Innovative Research in Technology, Science & Engineering (IJIRTSE)
ISSN: 2395-5619, Volume – 4, Issue – 4. June 2018

SMARTCARD DIMENSION

Mrs.M.J.Priya

Assistant Professor, Tagore Institute of Engineering and Technology, Salem.

Ph- 9865167778 Email- velpriyamba@gmail.com

Mrs.M.Nandhini

Student, Master of Business Administration, Tagore Institute of Engineering and Technology, Salem.

Ms.S.Pratheepa

Student, Master of Business Administration, Tagore Institute of Engineering and Technology, Salem.

ABSTRACT

Organizations have been experimenting with smart cards for almost thirty years, yet they are not yet pervasively used particularly in the North American market. Smart cards offer exciting possibilities for convenience, accuracy, customization, data security and cost reduction for individuals and organizations.

There have, however, been many barriers to the broad diffusion of smart cards such as deposit insurance liability, data accuracy, transaction anonymity, fraud risk, the small number of application developers and the difficulties associated with changing people's habits and expectations. Smart Cards are often touted as "secure" portable storage devices. A complete, high-level design metodology has been proposed for embedded information systems based on smart card devices.

Keywords: Smartcard, Convenient, Accuracy, Safety, Self- data.

INTRODUCTION

A smart card is a device that includes an embedded integrated circuit chip (ICC) that can be either a secure microcontroller or equivalent intelligence with internal memory or a memory chip alone. The card connects to a reader with direct physical contact or with a remote contactless radio frequency interface. With an embedded microcontroller, smart cards have the unique ability to store large amounts of data, carry out their own on-card functions. There are two types:

A contact smart card must be inserted into a smart card reader with a direct connection to a conductive contact plate on the surface of the card (typically gold plated). Transmission of commands, data, and card status takes place over these physical contact points.

Applications of smart card

Application are based on different approaches. They are,

Financial: Smart cards serve as credit or ATM cards, fuel cards, mobile phone SIMs, authorization cards for pay television, household utility pre-payment cards, high-security identification and access badges, and public transport and public phone payment cards.

A contactless card requires only close proximity to a reader. Both the reader and the card have antennae, and the two communicate using radio frequencies (RF) over this contactless link. Most contactless cards also derive power for the internal chip from this electromagnetic signal. The range is typically one-half to three inches for non-battery-powered cards, ideal for applications such as building entry and payment that require a very fast card interface.

SIM: The subscriber identity modules used in mobile-phone systems are reduced-size smart cards, using otherwise identical technologies.

Identification: Smart-cards can authenticate identity. Sometimes they employ a public key infrastructure (PKI). The card stores an digital certificate issued from the PKI provider along with other relevant information.

Public transit : Smart cards, used as transit passes, and integrated ticketing are used by many public transit operators. Card users may also make small purchases using the cards. Some operators offer points for usage, exchanged at retailers or for other benefits.

Computer security: Smart cards can be used as a security token. Mozilla's Firefox web browser can use smart cards to store certificates for use in secure web browsing.

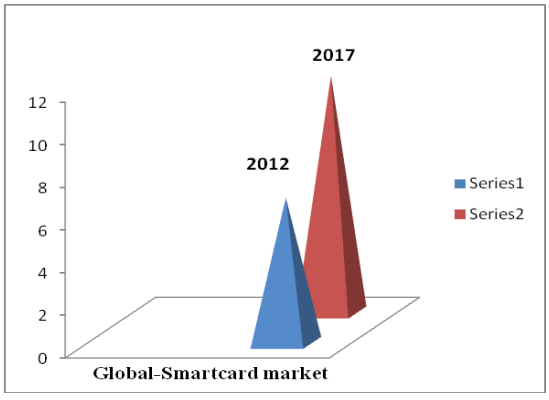
Schools: Smart cards are being provided to students at some schools and colleges. Uses include: Tracking student attendance as an electronic purse, to pay for items at canteens, laundry facilities, etc.

Healthcare: Smart health cards can improve the security and privacy of patient information, provide a secure carrier for portable medical records, reduce health care fraud, support new processes.

records, provide secure access to emergency medical information, enable compliance with government initiatives (e.g., organ donation) .

Other uses: Smart cards are widely used to encrypt digital television streams. Video Guard is a specific example of how smart card security worked.

It Market size and growth



Source: BCC research

Globally, the smart card market stood at 6.8 billion units in 2012 and its is expected to reach 11.1 billion during the period 2012-2017.

The Indian smart card market is expected to reach around 52.76 billion by the end of 2015, an increase of about INR 21.73 billion from the revenues during the period of 2012-2015.

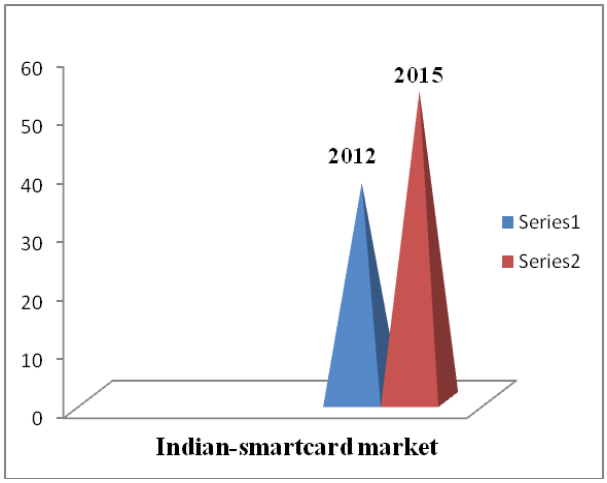
During the coming years, the smart card are expected to percolate more into number of others sectors such as credit/debit cards, the financial inclusion, public distribution, health care, identity management, transportation etc.,

Further, the National Population Register which is expected to represent biggest

The Role of Standards in the Future of Smart Cards

Today, there is a growing number of smart card token manufacturing around the world , and there are already dozens, perhaps hundreds of different smartcard and token interface protocol. While there may be a need for specialized cards are token in a application segment in 2018, is expected to account for less than 31% of the total market volumes by 2018.

Moreover the entry of innovative the smart cards devices in the market.



Source: Cyber media research

Certain access control system, extensive used of smart card in everyday activities depends on

the interoperability of cards and card reader/ card writer devices produce by different companies.

The current efforts of the **International Organization For Standardization (ISO)** and the **American National Standardization Institutes (ANSI)** may yield standards for contact-types smart card.

While standardization of the contact-types smart card is a very significant first step continued standard development will be accrual in the evolution of the smart card one source suggest that, **"All locations , time periods, industries and application are legitimate expectations for smart card realization. The smart card will be an important tool in the hands of mankind"**

Conclusion

Smart cards can add convenience and safety to any transaction of value and data; but the choices facing today's managers can be daunting. We hope this site has adequately presented the options and given you enough information to make informed evaluations of performance, cost and security that will produce a smart card system that fits today's needs and those of tomorrow. It is our sincere belief that informed users make better choices, which leads to better business for everybody.

References

- Rankl, W.; W. Effing (1997). Smart Card Handbook. John Wiley & Sons.
- Guthery, Scott B.; Timothy M. Jurgensen (1998). SmartCard Developer's Kit. Macmillan Technical Publishing..
- Home web for The Berlin Group. The Berlin Group. 2005-08-01. Archived from the original on 2006-05-07.
- CreditCards.com (2009-10-27). "Cashless lunches come to Australianschools".Australia.creditcards.com. Archived from the original on 2010-11-29.