A REVIEW ON ECHEQUE SECURITY SYSTEM

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ABSTRACT:- An electronic check, also referred to as an e-check, is a form of payment made via internet, or other data network, designed to perform same function as a conventional paper check. Since cheque is in an electronic format, it could be processed in fewer steps. Additionally, it has more security features than standard paper checks including authentication, public key cryptography, digital signatures & encryption, among others. A reformatting service offered by banking merchants. Cheque conversion allows banks to convert paper checks into electronic ones & then send them to appropriate receiving bank. Electronic cheque is forwarded on via automated clearing house.

Keyword Electronic, Payment, Capital, Cryptography, Cheque

[1] INTRODUCTION

E-cheques are a mode of electronic payments. This technology was developed couple of years ago & has been promoted by many of financial institutions. E-cheques work same way as paper cheques & area legally binding promise to pay. The payer/account holder writes an e-cheque using a computer or other type of electronic device & transmits e-cheque to payee electronically. However, e-cheques are affixed with digital signatures. Cryptographic signatures on every e-cheque could be verified at all points. The payer writes an e-cheque by structuring an electronic document with information legally required to be in a cheque & digitally signs it. The payee receives e-cheque over email or web, varies payer's digital signature, writes out a deposit & digitally signs it. The payee's bank verifies payer's & payees digital signatures & forwards cheque for clearing & settlement. The payer's bank verifies payer's digital signature & debits payer's account. The standard notion of digital signature security is extremely vulnerable to leakage of secret key which over lifetime of scheme may be quite a realistic threat. Indeed if secret key is compromised any message could be forged.

OBJECTIVES:-

To develop a user friendly Electronic Check System to overcome limitation of manual check system & to enhance flexibility of commercial as well as business transactions in an easy way.

It Reduce costs, minimize risk & get faster access to your money by converting paper checks into electronic transactions right at point of sale.

Fig 1 Electronic check

Process of check

A reformatting service offered by banking merchants. cheque conversion allows banks to convert paper checks into electronic ones & then send them to appropriate receiving bank. electronic cheque is forwarded on via automated clearing house.

Breaking Down 'Check Conversion'

This service is popular with merchants because it allows them to clear checks they get much more quickly. quickness of electronic format eliminates much or all of time spent waiting for a traditional paper cheque to clear. Furthermore, electronic checks are always processed before paper ones.

This service is also known as accounts receivable conversion.

Electronic cheque Presentment - ECP

A process allows financial institutions to exchange digital images of checks instead of paper to increase speed of of cheque cashing process. Signing of cheque Clearing for 21st Century Act by President Bush permitted use of electronic cheque presentment. Electronic cheque presentment saves financial institutions cost of sending checks & storage of those checks better customer service.

[2] LITERATURE REVIEW

Many banks have expanded their network by operating extensive branch bank networks. Several researches have been made in this area.

In 2000 Pita Jarupunphol & Wipawan Buathong The Future of e-Commerce Security

The growth of e-commerce clearly relies upon a strong support from consumers & merchants. Since security of sensitive information is an issue of concern to e-commerce consumers, it is vital to have security criteria & mechanisms in order to address this issue. Recently, there have been several secure e-commerce applications invented to fulfill e-commerce end-user security requirements.

In March 2012 wrote by Ajeet Singh A ReviewSec ure Payment System for Electronic Transaction

The electronic payment system is to be secure for Internet transaction participants such as Payment gateway server, Bank sever & Merchant server. The security architecture of system is designed by using Many Security Protocols & techniques, which eliminates fraud that occurs today with stolen credit card/debit card payment information & customer information. Electronic commerce involves exchange of some form of money for goods & services over Internet but today, Internet is an insecure & unreliable media.

In 2012 Pita Jarupunphol & Wipawan BuathongPKI in B2C E-Commerce

General purpose & application-specific PKIs are two main categories of PKI that support a variety of cryptographic operations for providing secure environment. SSL/TLS & SET are two distinct security protocols utilizing these PKI categories for securing e-commerce transactions. While former protocol categorised as a general purpose PKI has been playing an important role in e-commerce security, there were several implementation issues associated with latter protocol designed to support an application-specific PKI.

In April 2013Pita Jarupunphol & Wipawan Buathong Secure Electronic Transactions Case of Secure System Project Failures

Secure Electronic Transactions is a security protocol for an electronic payment system that utilises PKI to address e-commerce security & privacy concerns. Although PKI technologies used by SET protocol were proven to be effective in addressing security issues in e-commerce, several implementation issues were found from SET applications de-signed to support security mechanisms ofPKI.

[3] SECURITY TECHNIQUE CRYPTOGRAPHY

It had been discipline of information security had been called Cryptography. Meaning of Cryptography had been "hidden" imitative from Greek kryptos. Cryptography means hide information within storage or transfer including methods such as microdots, integration of words with image.

Cryptography had been process of altering plaintext using process encryption into cipher text using procedure decryption. This procedure had been used to secure communication between two parties within occurrence of third party. There are four goals for Modern cryptography:

Confidentiality

It identifies that only participants (Sender & Receiver) should be able to access message.

Integrity

Content of message should not be changed. If it had been altered, then it had been called type of modification attack.

Non-repudiation

There had been situation where sender converts content of message & after that he refuses that he had not sent message.

Authentication

Both sender & receiver had to prove credentials to each other.

In current times, cryptography had been basic requirement of computer experts for security purposes so that two parties could send data to each other without any modification & confidently.

DES

The **Data Encryption Standard** is a block cipher, meaning a cryptographic key & **algorithm** are applied to a block of data simultaneously rather than one bit at a time. To encrypt a plaintext message, **DES** groups it into 64-bit blocks.
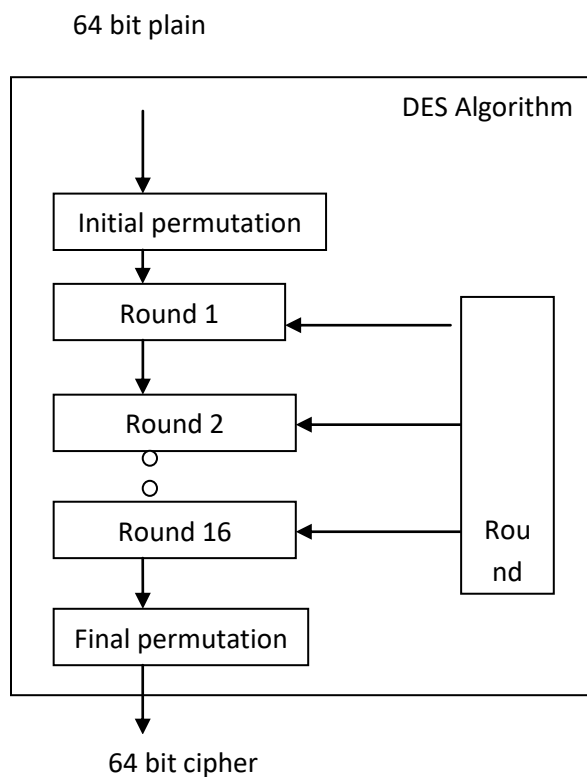
64 bit plain

Fig 2 Data Encryption Standard

[4] PROPOSED WORK

1. E-Check would be submittal by user along with biometric sample.

2. Admin will check amount in users account.

3. Admin will check all account related detail eg:- account no., check no.

4. Then propose biometric security will compare biometric sample stored in existing database with biometrics sample send by users.
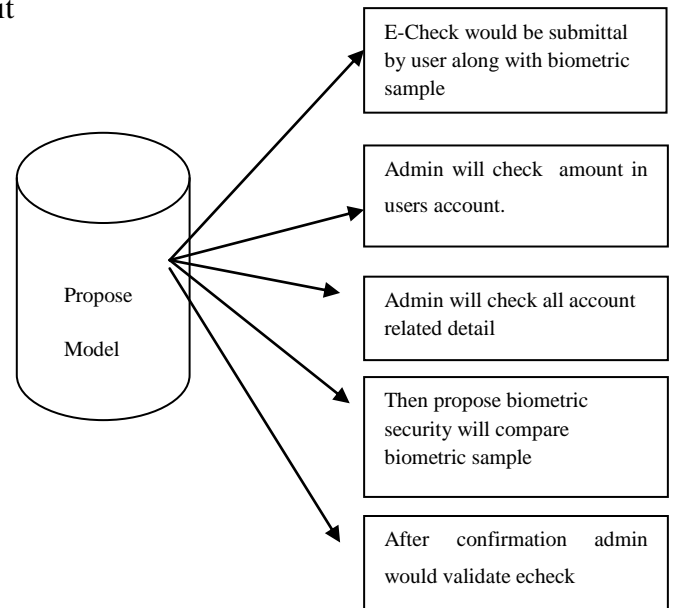
5. After confirmation admin would validate echeck

Fig 3 Proposed Model

[5] CONCLUSION

This research work discusses a user friendly Electronic Check System to overcome limitation of manual check system & to

enhance flexibility of commercial as well as business transactions in an easy way.

It Reduce costs, minimize risk & get faster access to your money by converting paper checks into electronic transactions right at point of sale.

It eliminates need of issuing cheque-book from bank. It eliminates cheque portability issue. It provides a more secure means of transaction. It provides a very fast & reliable means of transaction. It lowers transaction processing time or clearing cycle.

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