**E-CHEQUE TRANSACTION ON SPLIT KEY AUTHENTICATION**

**ABSTRACT**

In the wake of RBI allowing new banks to come up for small payments, embracing technology into play is advantageous. Approval and adaptation of a new methods using technology will bring in a comfort level for regular business payments by ordinary and non tech savvy citizens. Email like convenience (but NOT Email) can be provided for routine payments.

Imagine whenever a cheque is issued, a copy is also sent to the bank. When the recipient deposits that cheque, bank verifies with the copy already sent by the issuer and then clears for payment. The split key Authentication for Electronics Transactions proposed in this Project will facilitate this procedure.

Paperless new electronic cheques are very convenient but similar and act like regular cheques with added security. All the stake holders namely, the payer, payee and the bank are safe guarded by its unique method.

After getting approval from Reserve Bank of India, all the banks can try ‘***e***Cheques’, initially with the customers of the same bank for transacting between them and then extend for inter-bank transactions.

Environment friendly is so much talked about but bringing into action is not at the desired level. Tons and tons of paper will be saved by avoiding paper cheques which in turn will reduce the cutting of trees leading to ‘Green Transactions’. Writing cheques will become history and it will change the way people transact.

All the vendors of banking software should consider for extending ‘***e***Cheques’ to their business customers who will be thankful for providing such a long awaited facility hitherto ignored. The author will be glad to share the details when called for.

**CHAPTER 1**

**INTRODUCTION**

This algorithm is formulated mainly to enable authorization by a third party when a set of related transaction is received from two different sources. For example, when a payment instruction is sent simultaneously to the Bank and to the Receiver, who in turn forwards to the bank for clearing, the bank needs to authorize the transaction set received from both the sources. While the transmission level security is already taken care of by the existing systems, this will be useful for validating a related pair of documents, sent from the same source initially for two different destinations, but the second receiver forwards the same to the first receiver who will be acting as a common entity for both, and needs authentication

* 1. **Aim:**

Payment by paper cheques is to be reduced within two years by 95% for GREEN BANKING! - should become the motto.

* 1. **Who?**

All business enterprises whether large, medium or small scale industries and trading community **including individuals** should carry on routine banking operations electronically with ease.

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**1.3 Why?**

Whatever advantages gained by existing electronic transactions are offset by the absence of adequate details needed by the recipients for a satisfactory book-keeping as they need to be extracted from other communication sources and entered manually. Online payments are not convenient for routine payments in business since account keeping has to be done separately. Hence there is a need for making routine electronic payments in normal business environment, not necessarily an online payment.

* 1. **How?**

Accounting should be preceded first followed by the actual funds flow. Payments should be effected by instructions based from the authorized source, in place of the instrument based system. The fundamental double entry journal system should be followed for electronic payments with tri-party transactions involving payer, payee and the bank. A built in security feature should ensure safer transfer of money.

An ideal system should provide an offline / online system capable of maintaining the required security level. It should be user centric that is not tied with a single web site of a bank, but a facility to send or receive transactions to multiple banks in a single log in. It should be convenient to the users, to be able to prepare the payment instructions in leisure (off-line) by assistants and send them later (on-line) after the authorized persons approves with the password and optional digital signature. Accounting entry with Dr. & Cr. passed on to the respective receivers with authorized signatures, is a valid proof initiated by the payer to complete the payment cycle.

**1.5 Organization of the report**

The project report is organized into four sections as Introduction, proposed method, conclusion, and references.

In chapter 1, Introduction discuss the details of the technology used in the project

In chapter 2, Finding and current knowledge related to the project as well as the theoretical and methodological contributions towards certain topics.

In chapter 3, System Design and Implementation gives the details about the system designed and Implementation to improve the existing through modified methods supported by technology.

In chapter 4, Results and Conclusion analyze the result obtained and future improvement to be made.

In references section, it list out all the researches papers and experiments conducted related to the project.

**1.6 Summary**

This chapter describes about the newly proposed Distributed Key Authentication Algorithm for Electronic Transactions and how it can be applied for banking operations in clearing electronic cheques.

**MOTIVATION FOR THE WORK**

About 4.5 million cheques are being transacted per day. Out of this there will be at least 30% volume within the same bank operating core banking system.

Not only the paper is saved directly but a corresponding number of paper based remittance challans or pay-in-slips will be avoided.

Since email is quite common now and those who use email can easily shift to ‘th**e**Cheques’ as it works similar.

Enormous amount of time is saved not only in writing but also sending them by post or courier to reach the intended payees. These paper cheques are to be remitted only after filling and enclosing with Pay-in slips.

Most of the banks are asking to drop the cheques in the drop boxes kept. There is no acknowledgement given. When there is a miss, no proof of remittance is available to the depositors.

Reserve Bank of India periodically publishes their policies and vision statements for Payment Systems in India, and a few portions of the latest one is given below. The main thrust is Cashless, Paperless and electronic payment methods to be brought into the main stream with innovations. The new system proposed covers almost all the intended features and extends beyond that.