



## Unification of Multiple Account using Single ATM Card

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### Abstract

*This paper is focused on Automated Teller Machine (ATM) services which are more popular because of their flexibility and easiness for banking systems. Currently, banks are looking beyond transaction to the full opportunity on how to manage their customer. Integration of Multi bank user in a single card and encourage banks that already have similar system to better customer management approach. Here we are developing an application for banking sector particularly for Debit/ATM card section. User can create his account and get ATM card from the bank. He can integrate all his accounts in other banks into a single card with unique OTP number. User uses his unique OTP number for the verification part.*

**Keywords:** *ATM, Multi Bank, OTP, PIN, RFID, Transaction, User authentication.*

### 1. Introduction

ATM is an abbreviation of Automated Teller Machine. It was introduced in 1960s. ATM is an electronic telecommunication device that enables the customer of a financial institution to perform financial transactions without the need for a human cashier, clerk or bank teller. This project gives the overview of integration of Multibank user in single card to provide critical information for managing the bank customer more effectively. It also deals with customer expectations such as how safe and secured the information would be. Here we are developing an application for banking sector particularly for Debit/ATM card section. An RFID card can be used as a smart ATM card, RFID is considered as exciting and fast-growing technology. It improves the

efficiency of Multi banking and transaction is made easier.

The objective of this specific application is to make the users of various banks to access their account and do transactions using this solution. They don't need to interact with various websites of each bank. The Admin will add bank details and can update the existing details of the bank. The Admin will accept or reject registration of a Customer to use this application. The Customers should request for multiple bank account access to the Administrator. He can view the Account related information.

## 2. Implementation

### 2.1 Proposed System

An RFID can be used as a smart ATM card reader. It is considered as exciting and fast-growing technology. It improves the efficiency of Multi banking and transaction is made easier. The RFID reader reads the RFID tag and finds the entire information about the user. Each one of the user can store their information in the RFID TAG. It is more secure than what we are using in the existing system. This method is possible by radio waves which transfers data from TAG to reader. The idea behind this SMART ATM card is that the customer has an advantage of using single ATM card to access different bank accounts instead of having individual card for each bank account and maintaining their pin carrying the cards safely which is a difficult process at present scenario. The technology used in the product of the service is that adding all the user bank accounts to a SMART ATM card. As shown in the figure(1) , the user swipes his smart card in the ATM machine, then it requests for authentication in the server side using PIN. After that the user is authenticated successfully, then it shows the list of all banks in which user is having account. Now the user is able select the bank from which he is willing to perform transaction. After selecting the bank, the request is sent to the selected bank through a network and it allows a links with the banks server for accessing the database of the user so that transaction is processed.

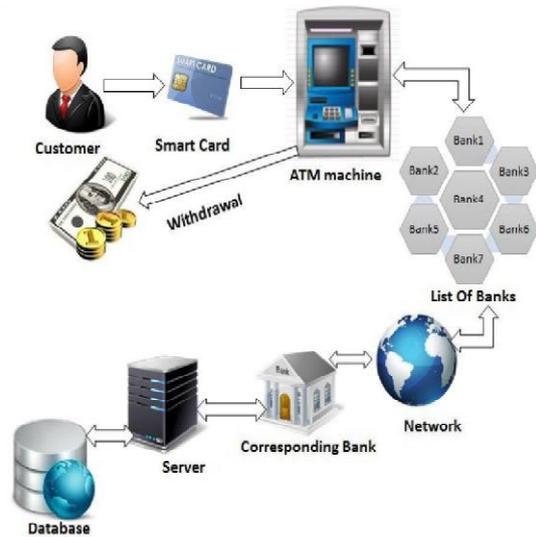


Figure.1 System Architecture

## 3. Results

### 3.1 Hardware



Fig 2. Hardware implementation of the system

### 3.2 Software

#### 3.2.1 Login Form

Figure 3.Login Form



The login activity allows an already registered admin/user to login to the system as per their requirements. The admin/user has to provide details such as username, password and select the option of bank to login.

### 3.2.2 Home Page



Figure 4. Home Page

This activity allows an already registered admin/user to perform operations such as adding the user, creating the account, view account, change password.

### 3.2.3 Customer Authentication Form



Figure 5. Customer Authentication Form

This activity allows the customer to authenticate his account when he swipes the card to perform transaction.

### 3.2.4 Bank Selection Form



Figure 6. Bank Selection Form

This activity provides the customer to select the bank to which he has linked his account.

### 3.2.5 Transaction Form



Figure 7. Transaction Form

This activity provides the user to select the type of transaction the customer wants to perform.

### 3.2.6 Cash Withdrawal Form



Figure 8. Cash Withdrawal Form

This activity provides the customer to withdraw the cash as per his requirement.

## 4. CONCLUSION

The system we are using for handling multiple accounts here is more efficient than existing system. This reduces transaction cost of handling multiple accounts of a single user. This makes banking system more efficient than the existing system. Using this the users can perform transactions for all his bank accounts using single smart ATM card with Enhanced security system such as OTP (one-time password). Thus, the user can manage his multiple accounts in various banks with the help of this single smart card which provides access and reduces the



complex of managing more than one ATM card and passwords. This also leads to reduce cost of transaction charges that were on the customers for making transaction and decrease in their production of smart cards for every account the user has. By implementing this ATM fraud i.e. skimming etc can be avoided.

## REFERENCES

- [1] [ISP.Thiruelavazhagan1, N.Sathish2, S.Saran Kumar3, Mrs.G,Aalin Joys 4 “*Integration of Multi Bank Multi User in Single Card with User Behavior Monitoring Using Face Recognition*”IJSART - Volume 3 Issue 3 2017
- [2] Suresh R, Somasundaram M, Sethukarasi T, “*Integration of Multi Bank Account in Single Card with User Behavior Monitoring Using Hmm and Verification*”,IJCSN International Journal of Computer Science and Network, Volume 6, Issue 3, 2017
- [3] Sivaranjani.S, Suganthi.I2, Usha.V, Vinitha.M, Smitha Gayathri.D, “*Multiple Account Access using Single ATM Card*”, International Journal of Innovative Research in Science, Engineering and Technology ,An ISO 3297: 2007 Certified Organization Volume 6, Special Issue 3, 2017
- [4] Katakam Swathi, Prof.M.Sudhakar, “*Multi Account Embedded ATM Card with Enhanced Security*”,IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-2834,p- ISSN: 2278-8735.Volume 10, Issue 3, Ver. I 2015
- [5] G. Manohar Babu, R.Anil Kumar, “ *Multiple Banking System Accessing with Embedded Smart Card ATM by using ARM7 Based RFID & GSM Technology*”, ISSN 2348–2370 Vol.07,Issue.08, 2015
- [6] Srivatsan Sridharan, Gorthy Ravi Kiran, Sridhar Jammalamadaka, “*Improvising Authenticity and Security of Automated Teller Machine Services*”, International Journal of Computer Science and Mobile Computing, Vol.3 Issue.2, 2014