

ATM MOBILITY COMMUNICATION VIA INTERNET

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Abstract - In this paper a research problem based on my ME dissertation describe an alternate way by how ATM and Mobile get communicated through internet which aims to give a dual security system for cash withdrawal from ATM. It is based on research methodology namely 'submergence in integration with identification.' In this paper only designing is given that how virtual ATM is created through software and how message is sending on particular mobile through internet service. Then the developed database is shown the main text ,along with the results of pilot testing finally main testing results are incorporated after the validation . They are also exemplified and elaborated with computerized photos. In conclusion the future scope and adaptability are covered up .

Index Terms - ATM , Clickatell gateway coverage, Communication ,Internet, Interfacing technology,Laptop/PC, and Mobile

1: Introduction

For ensuring a secure operations of cash withdrawal operation in ATM from hackers or thieves a system is designed. It introduces *a designed problem that there is "Immediate and mandatory message should displayed on mobile number of ATM card holder's about amount of withdrawn of money from their account which gives enhanced security about their cash withdrawn and gives a double security of their amount beyond a specified withdrawal amount which is different from user to user from hackers or thieves"*. Here ATM and mobile get interfaced for their operation by INTERNET through Clickatell's gateway coverage

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Keywords : ATM , clickatell gateway coverage (internet) and mobile.

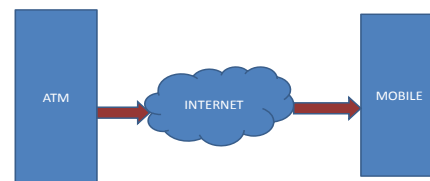
2: The ATM-Mobile interface eliminates use of paper, GSM modem, any interfacing software and printing thus it is less bulky and cheaper. Hence an advanced security interfacing is done using the following:

- a. Computer compatibility

- b. Internet
- c. Mobile phone

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- ATM SCREEN INTERFACING MOBILE SCREEN



3: System Design :

Here virtual ATM is created with the help of Xampp software and the two languages php and html. So that they get communicated and sending concerned message through clickatell's gateway coverage software with the help of internet to any mobile phone.If withdrawal amount exceeds the permitted value then it should be only withdrawn with the express permission of account holder. In this way we can provide a better security system for ATM holder from hackers or thieves. The desired value for cash withdrawal for is vary from user to user and above will be done by using ONE-OFF transaction password and consent of account holder.

DETAILED DESCRIPTION OF WHOLE PROBLEM

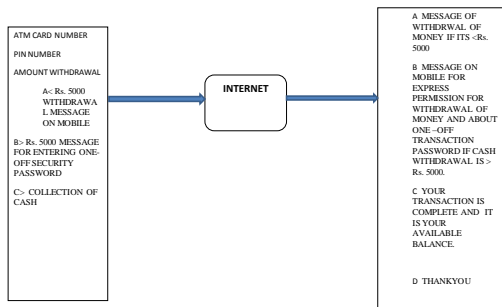


Fig 1 Detailed description of whole problem

Detailed Description Of Dissertation Problem With Designed Flowchart

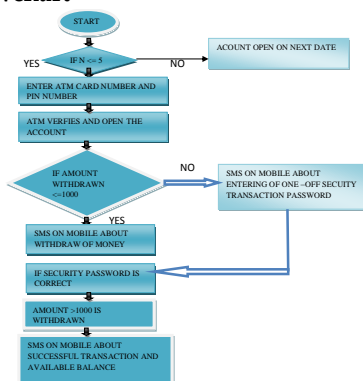


Fig 2 Designed flowchart

4: Solution for system design : The additional information are require only two which are following:

- (I) one-off transaction password and
- (II) mobile number

Information available these solutions account holder should given their mobile number to main branch of bank. It is mandatory because bank should communicate to its customers on registered mobile number and each concerned message should delivered to account holder.

Regarding one-off transaction password, this should be generated randomly at each time of login. By the help of One-off transaction password no other person except account holder can withdraw money for ATM.

5: Methodology:

Operation can be in two phases

1: If amount is greater than Rs. 1000 then it will send message on mobile about security one-off transaction password and take holder's consent hence there is a need of one-off transaction password which is given below:

E.g. of randomly generated one-off transaction password -:

Suppose ATM holder is <ANKITA MOWAR >

AND its security password is 24242326

Now ATM wants above mentioned information randomly as:

Enter your fourth character + enter your second character + enter your fifth.

Above information generated randomly as one-off transaction password is 442.

After this when it will be entered correctly then only cash is withdrawn otherwise transaction is stopped. This password is expected from user side and this is very important information because this is known to only real/ actual holder and no one can access the account. When this information are verified by ATM then only cash withdrawal process begins and completed and cash is received from cash slot by the customer.

2 :If amount is less than Rs. 1000

It will sent message on mobile about amount to be withdrawal from bank ATM.

6: Clickatell's Gateway Coverage:

This Clickatell's Gateway Coverage is a technical document intended for developers who wish to use the Clickatell HTTP API for sending messages, and by using this API it is able to describe the various programming methods and commands. The HTTP API is the most popular API, because there are many ways to utilize it for message sending and it can be used for low or high-volume messaging. As HTTP is a means for relaying information, the HTTP API can be used with practically any web-service application. This is particularly useful for high-volume message sending.

This is one of the simpler server-based forms of communication to any gateway which can be used either in the form of a HTTP POST, or as a URL (GET). HTTP POST is used for larger data transfer and due to the size limitations of GET. Communication can be done either via HTTP on port 80 or HTTPS on port 443. All calls to the API must be URL-encoded and the parameter names are case-sensitive while batch messaging is catered for in a variety of ways.

7: Steps for using Clickatell Gateway Coverages:

For using this API we have to done following steps mentioned below :

- Register at: www.clickatell.com.
- Sign up for an HTTP/S account at (https://www.clickatell.com/central/user/client/step1_new.php?prod_id=2).
- After signing up we will be have given a username, password and api_id:
- Once we have registered and been activated we will receive 10 free credits with which to test our service.
- Messages sent with these credits contain a canned (pre-populated) message.
- We can test the API using these credits, and purchase credits to start sending our own, customized messages.

8: Steps used for starring the Clickatell's Gateway Coverage:

1. Register for a Clickatell account

- Click on the registration hyperlink.
- Select the Account type you would like to use (Local or International)
- Enter your personal information to complete the registration form
- Accept Terms & Conditions
- Click **Continue** - an email containing an activation link will be sent to the email address you have provided

2. Add a registered API connection (sub-product)

- If you are not already logged into your account, then you must do so at <http://www.clickatell.com/login.php>
- Select manage my Products from the top menu.
- Select Get Connections from the Manage my Products submenu in the left pane.
- Select the API you wish to add to your account.
- Complete the details.

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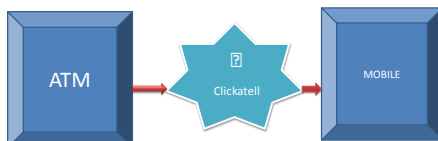


Fig 3: ATM MOBILE COMMUNICATION

9: Process set up

Step I

Here we first installed the three software namely XAMPP , NOKIA PC SUITE , NOWSMS LITE. After the installation of all three softwares, software icons are displayed on screen .Now following steps are required to run this project .

- On desktop screen click on xampp control panel shown in below fig.4 By clicking xampp control panel application is displayed.

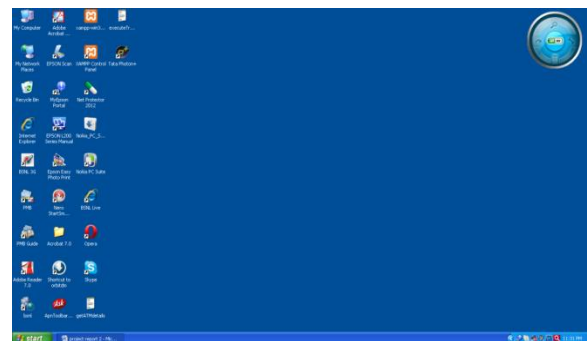


Fig 1 : Desktop screen shown xampp control software

Step 2:

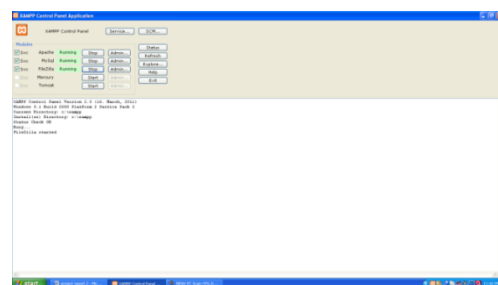


Fig 2: Xampp control panel with running three services

- Three small packages services are running namely Apache , Mysql , Filezilla
- By clicking on Mysql Admin we get *phpMyAdmin* application file as *localhost/ phpMyAdmin 3.3.9* on this click on mysql (25) and creating one database named as *atm_card_info* as below.

Step 3 :

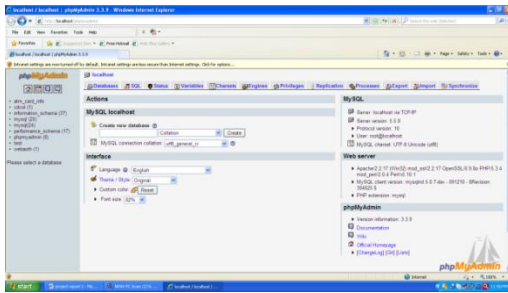


Fig 3: phpMyAdmin application page

Step 4 :

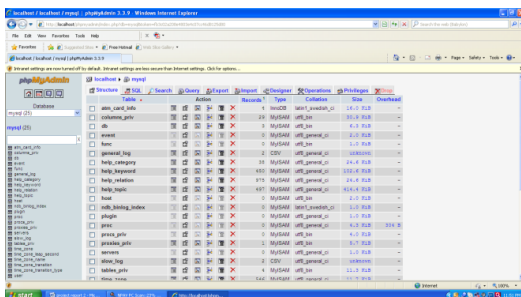


Fig 4: Mysql service shows number of databases.

- By selecting the database we have to enter the field name , its typewith size and value. After entering all we get a display like as shown below

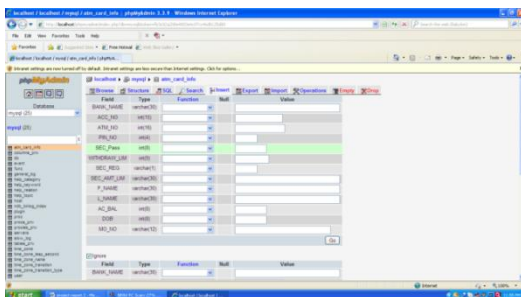


Fig 5: atm_card_info database with required field.

- After entering the entries on database we are ready to create one directory as shown below

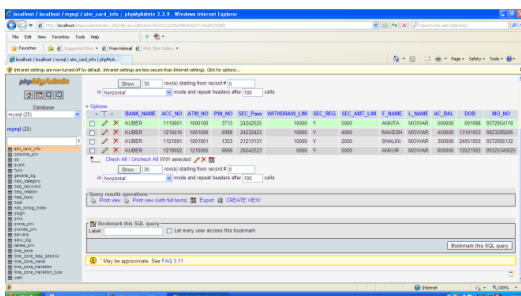


Fig 6: Directory of atm_card_info database.

- After completion the use of xampp software now nokia pc suite and nowmslite are open now nokia c1-01 phone is get connected to pc through usb cable and nowmslite is also get started
- After these all are start the internet explore should open by keeping address on addressbar as localhost /rashi atm.html.
- By opening above site we get information as shown .

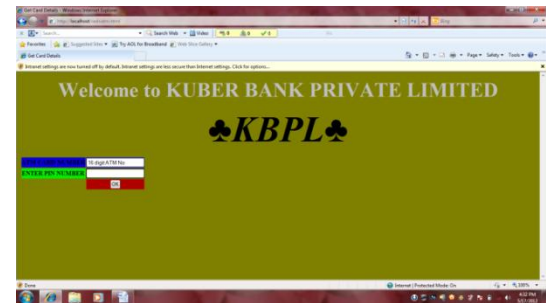


Fig 7 : ATM screen 1

By entering atm card number and pin number particular customer account get opened which is shown.



Fig 8 : ATM screen 2

- In above screen there is question about balance as amount withdrawn . If this amount is less than as specified amount then message (sms) is delivered to customer mobile number given to Kuber Bank Private Limited with all details as shown.

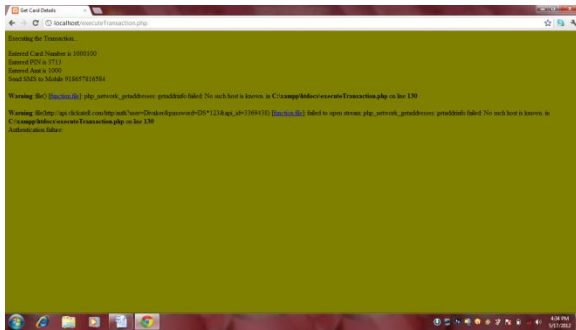


Fig 9 : ATM screen 3

- But if amount withdrawn is greater than the specified value there is a message to user for express permission of withdrawal of money by sending the characters of one-off transaction password as shown below .

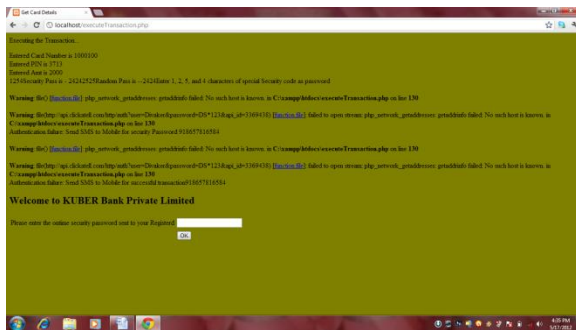


Fig 10: ATM screen 4

By entering the one-off transaction password given on mobile we are able to collect the cash as shown below. Thus transaction is completed.

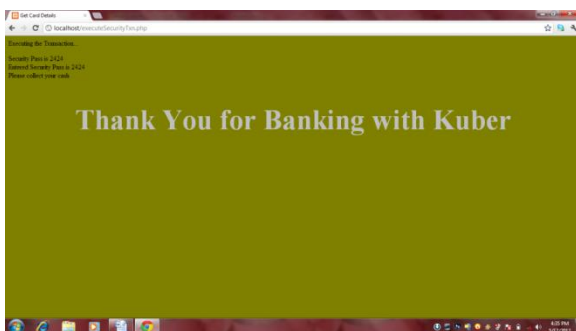


Fig 11: ATM screen 5

10: Conclusion

If withdrawal amount exceeds the desired value then it can be only withdrawn with the express permission of account holder. In this way we can provide a better security system for ATM holder from hackers or thieves.

The desired value for cash withdrawal for Rs. 1000.00 and above will be done by using both ONE-OFF transaction password and consent of account holder .

11: Future Scope : The following are included in future scope of similar study :

- May be suitably integrated for the blind .
- Adopting for international banking system .
- By having any software the agreement of > Rs.1000 is sent to user account from user mobile.
- Voice SMS feature may be incorporated.
- Amount of withdraw limit can be changed.

12: References

3. Ankita Mowar , P.H. Zope Communication Between ATM And MOBILE. In VSRD JOURNAL.
4. Bellare M., Goldreich O., and Krawczyk H. Stateless evaluation of pseudorandom functions: Security beyond the birthday barrier. In *Advances in Cryptology - Crypto 99*, volume 1666 of *Lecture Notes in Computer Science*. Springer-Verlag, 1999.
5. Clickatell's gateway coverage software from Clickatell_HTTP. Pdf.
6. D. Chaum and T. Pryds Pedersen. Wallet databases with observers. *Advances in Cryptology- Crypto'92, Lecture Notes in Computer Science*, Springer-Verlag, 740:89-105, 2006
7. EFY Vol June 23.
8. F. Puente, S. Gonzgez, J. D. Sandoval, PernAndez,
9. "Viral Aftack to Internet Baking Applications", IEEE AES Magazine, Vol 15, Num. 6, pp 3-8, ISSN 0885-8985, June 2008.
10. Internet/ world wide web .
11. M.E dissertation entitled "ATM Mobility Communication" Unpublished by ANKITA R MOWAR .
12. S. Nambiar, C.-T. Lu, and L.-R. Liang, "Analysis of payment transaction security in mobile commerce," IEEE International Conference on Information Reuse and Integration, (IRI'04), 2008.
13. T. Dahlberg, N. Mallat, J. Ondrus, and A. Zmijewska, "Past, present and future of mobile payments research: A literature review," *Electronic Commerce Research and Applications*, vol. 7, pp. 165-181, 2009.
14. Webster's Dictionary.