



A discussion on ATM and its purpose

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Abstract: In our project security and authentication plays a major role. It can be mainly used in online banking or ATM machines. The mobile phone acts as a security token for authentication. The user login's the ATM machine by scratching the card and entering the password. For providing more security separate token number is used for performing the banking operation like money withdrawal, checking the balance etc. This token number is generated using the SHA algorithm and XOR operation,. The user mobile number IMEI number, pin number and IMSI number is a six digit random member that were obtained from the included number. The token number is sent to the user mobile. This token number is given for accessing or performing the banking operations. The token number is generated for every interval of time. For more than three times if the user gives and invalid pin number the ATM card is blocked.

Key Words: ATM-Automated teller machine, XOR- Exclusive OR,

Introduction:

In our project security and authentication plays a major role. It can be mainly used in online banking or ATM machines. ATM is a cauterized Electronics device. Enables clients to perform financial transactions. Using ATM, customers can Access bank – accounts. Features: Withdrawal, check balance, make deposit. Hongkong and Shanghai Baning Corporation (HSBC). First bank introduce ATM concept in India 1987.

ATM – Abbreviation: - Automated teller machine

An ATM is a machine built into the wall of a bank or other building, which allows people to take out money from their bank account by using a special card. ATM is an abbreviation for automated teller machine.

ATM Definition: Automated Teller Machine, a machine at a bank branch or other location which enables a customer to perform basic banking activities.

ATM started first in the world: While taking a soak, inventor john shepherd – Barrom devised what is hilled as the world's first automatic teller machine, although his claim to the title is matter of dispute. He pitched the device to the British bank Barclalys. It accepted immediatly, and the first model was built and installed in London in 1967.

Back ground of ATM :

The National Financial switch was launched by the IDRBT on 27th August 2014 connection the ATMs of three banks. Corporation Bank, Bank of Baroda and ICICI Bank. The IDBRT then worked towards bringing all major banks in India on board and my



December 2009, the network had grown to connect 49,880 ATMs of 37 banks, there by emerging as the largest network of shared ATMs in the country.

Any bank that provides core banking services with 24x7 transaction banking capabilities with or without ATMs may join the National Financial switch through a sponsor bank. This allows non-scheduled urban co-operative Banks (UCBS) and Regional Rural Banks (RRBS) to gain access to the national network of over 103,000 ATMs in the country. Before 14 August, 2011 access was limited to scheduled banks with RTGS membership. The sponsorship scheme was started to increase the connectivity of ATMs across the country, and to enable customers to use ATMs India.

The primary head quarter is located at Mumbai.

ATM First time in India Launched: The ATMs installed were from Diebold HSBC- the Hongkong and Shanghai Banking Corporation – was the first bank to introduce the ATM concept in India way back in 19087. In India was launched by Rajiv Gandhi in 1988. Now, most of the banks have their ATM outlets in India.

ATM stands for: ATM stands for Automated Teller Machine. It's a specialized computer that makes it convenient to manage your money. For example: - almost all ATMs allow you to with draw money, and many allow you to make deposits.

ATM Functions and working process: The automated teller machine is simply a data terminal with two input and Four output devices. These devices are interfaced to the processor. The host

processor is communicating with the internet service provider (ISP). It is the gateway through all the ATM networks available to the card holder.

Benefits of ATM: Automated Teller Machines are electronic machines, which are operated by customer himself to deposit or to withdraw cash from bank. For using an ATM, a customer has to obtain an ATM Card from his bank. The ATM card is a plastic card, which is magnetically coded. It can be easily read by the machine.

The operate an ATM card; the customer has to insert the card in the machine. He has to enter the password (number). If the authentication or password (number) is correct, the ATM permits a customer to make entries for withdrawal or for deposit. On completion of the transaction, the customer's card's ejected from the ATM.

Types of ATM Cards:

1. Debit Card
2. Credit Card

Debit Card Uses: A debit card is uses withdraw cash in ATMs. Any time any when in world Debit card is payment card they deduct money directly from a consumer's checking account to pay for a purchase. In addition they also allow the use to make purchases ATM cards, by contract only allow the user to withdraw money from an ATM. While credit cards only allow purchases unless the credit card holder has A PIN –ENABLED cash advance feature & cash advance with incur interest, unlike withdrawing from a checking account.

Credit card Uses: A credit card is issued by a credit card provider, like capital one



and they are designed to pay for things in shops or online. You can also use credit cards for balance transfers and taking out cash (also known as cash advance or cash with drawl) from an ATM.

ATM Provides 24 hours service: Time of the day or night. ATMs provide service round the clock. The customer can withdraw cash up to certain a limit during any

9 useful services that can be availed from an ATM, apart from cash withdrawal and checking account balance

1. **Open or withdraw a fixed deposit:** You can open a fixed deposit with your bank using an ATM. Select 'Open Fixed Deposit' on the ATM menu, select the duration, enter the amount and confirm the other necessary details.

2. **Recharge your mobile:** Prepaid services of most mobile operators can be recharged from an ATM. You can also recharge mobile phones of friends or family members in the same manner.

Select 'Mobile Recharge', enter your mobile number and re-confirm, then enter the recharge amount.

3. **Pay income tax:** Some banks offer the convenience of paying income tax using ATM's. This includes advance tax, self-assessment tax as well as tax due after regular assessment. You need to register for the facility on the bank's website or branch first. Once the amount is deducted from your account, the ATM will generate a unique number (CIN). You can visit the bank website after 24 hours and print the challan using the CIN.

4. **Deposit Cash:** Many banks have installed cash deposit machines in ATM kiosks. One can deposit up to 40,900/- per transaction.

Denominations of 100/-,500/- and 1000/- are accepted.

5. **Pay insurance premium:** Insurers like LIC, HDFC Life and SBI Life have tied up with banks to facilitate premium payment through ATMs. Just keep the policy number handy. Go to 'Bill pay', select insurer, enter policy number and date of birth or mobile number, then enter premium amount and confirm.

6. **Apply for personal loan:** To avail of small ticket personal loans, you don't need to approach a bank branch or speak to a phone banking executive. Some private sector banks now offer preapproved personal loans for customers using ATMs as the point of disbursement. The loan amount is decided using advanced analytics, which take into account the customer's transaction details, account balance, salary credits, and credit and debit card repayments.

7. **Transfer cash:** If you do not have access to Net banking, funds can be transferred from your bank account to that of another bank using an ATM.

You need to register the beneficiary account online or at bank branch.

Up to 40,000/- can be transferred to the beneficiary account in a day, with no limit on the number of transactions.

8. **Pay your bills:** You can pay utility bills like your telephone bill, electricity bill, kgas bill and others through ATMs. You need to register the biller on the bank's website before you can make the payments.

9. **Book railway tickets:** Public sector banks like SBI and Punjab National Bank, among others, offer the facility as select locations on railway premises.

As of now, only long distance reserved tickets are issued this way.



ATM gives convenience to bank customers:

ATMs provide convenience to the customers. Now a day, ATMs are located at convenient places, such as at the airports and railway stations, and not necessarily at the bank's premises'. It is to be noted that ATMs are installed off-site (away from bank premises) as well as on site (installed within bank's premises). ATMs provide mobility in banking services for with drawl.

6 Type of Debit Cards in India:

1. Visa Debit Cards: Visa debit cards are perhaps the most popular debit cards in India. A majority of the banks in the country have tie-ups with Visa. Visa debit cards allow banks to deliver a verified by Visa service for enhanced security in online transactions. The visa Global Customer Assistance Service works on a 24/7 basis and deals with any debit card related issues or queries on an immediate basis. There's special feature called the 24 Hour concierge service, which makes so many things easier such as flight reservations, hotel reservations, restaurant reservations, ticket purchases, etc. The VISA ATM network is widespread as well. The enhanced security offered by VISA allows you to shop safely without worries of any sort.

2. Visa Electron Debit Cards: Visa Electron debit cards are the same as visa debit cards except that they do not offer the overdraft feature that visa debit cards do. Most Indian banks such as Syndicate Bank of India and Bank of Maharashtra offer Visa Electron debit cards. It is simple, cost-effective debit card that doesn't charge much for its services. The big advantage of using visa electron debit cards is that you will never be allowed to

overspend at any stage and will never fall into debt cards is that you will never be allowed to overspend at any stage and will never fall into debt. There are no interest charges when you withdraw cash either. You can shop online using Visa Electron debit cards and pay your utility bills online as well. Plus, these debit cards are very secure and there is very little risk of any sort of fraud happening with them, unless you are particularly careless about how you use them.

3. MasterCard Debit Cards:

MasterCard, along with Visa is one of the biggest debit/credit card companies in the World. MasterCard debit cards are very popular and they are offered by a majority of banks in India. MasterCard is known for its fast service and excellent customer support as well as its excellent benefits and rewards program. MasterCard debit cards are accepted all over the world, not just in India – so you can use them to make payments when you go on a trip abroad or when shopping at a foreign online store. You can use the MasterCard debit card to withdraw cash from an ATM no matter where you are in the world. The 24/7 customer support is very professional and resolves issues very quickly.

4. Contactless Debit Cards: Did you know that over 60 percent of debit/credit card transactions in India are less than 2000/-? Any transaction below 2000/- in India can be processed without a pin, as per RBI regulations. That's why contactless debit cards are offered by a number of banks in India. They are based on the Near Field Technology(NFC) which allows for safer and more secure transactions. Contactless debit cards are much faster than other types of debit cards and are very useful when performing transactions in a busy market or retail environment.



Customers don't have to worry about finding change and don't have to carry cash either. Top banks such as SBI, Axis Bank, HDFC Bank and ICICI offer contactless debit card services.

5. RuPay Debit Cards: RuPay is India's own version of Visa and MasterCard and has been going great guns since being introduced by RBI in 2012. RuPay allows for safe payments at POS terminals and secure online transactions. RuPay is considered by many to be the best alternative to both MasterCard and Visa because of its low transaction costs and because of its easy availability even in rural areas. RuPay debit cards are also more flexible than their multinational competitors.

6. Maestro Debit Card : Maestro debit cards are recognized by over 1.5 crore POS terminals in India and used by every bank in the country, except for ICICI Bank. It is the debit card of choice for the Punjab National Bank, State Bank of India, Oriental Bank of Commerce, Bank of Rajasthan and Syndicate Bank. Maestro debit cards are flexible, fast and have very low transaction costs. They can be used overseas as well. Maestro debit cards are very safe and protected by a very advanced security system.

Points to note while using mobile banking and ATM cards:

1. For mobile banking, consumers should only use the official app provided by the bank and downloaded only from official app stores of Apple, Google and windows. They should specially be careful of aggregator' apps that claim to

provide a consolidate account vies across banks they may contain some virus/mat ware," advises kinger.

2. Explaining the modus operandi and ways to avoid card skimming, kinger said, " In the case of card skimming, fraudsters install a device on the top of the card reader in ATM machines that blends in with the ATM machines that blends in with the ATM equipment and stores the credit/debit card details. This information is the retrieved by the fraudster by copying it onto another blank card's magnetic stripe and used to make purchases or withdraw cash in the name of the actual account holder. So, while using cards at ATMs and merchant outlets, users should always look for suspicious looking equipment that overlays the card reader to prevent card skimming".

What is the difference between credit card and ATM card?

The essential difference between the credit card and ATM Card is that the former offers credit facility as the name suggests, whereas the latter in a networked environment allows the occupant of the card holder to be directly debited.

Advantages of ATM:

- ATM provides banking services to its customers round the clock, 24 hours a day, 7 days a week and 365 days a year.
- Essential banking services like deposits, withdrawals transfer of funds, etc and be accessed by customers from any part of the world.
- Of the Banks can expand their services to any corner of the world by providing electronic access to its customers.



- This reduces human intervention and there by reduces to cost of operations and increases profitability of banks.

- Now a day's almost every shopping mall, restaurant and other organizations are accepting credit card payments.

Disadvantages:

- In a country like India, where banks are having large number of rural and non-computerized branches. ATM services cannot be provided.

- Even if banks make some efforts to introduce ATM services country side, various constraints like illiteracy, Security concern etc., may not permit that.

- Again there is a limitation of cash withdrawals from ATM. For example, many banks do not permit withdrawal of more than 25000 at a time.

- Similarly cash deposit facility is restricted and not safe as dropping of envelope with can in ATM is not advisable.

- ATM Card, if misplaced, lost or stolen, may be misused. There are number of such reported incidences now a day.

- Last but not the least; customers lose personal touch with their bankers.

Conclusion:

Everyone is aware that in the present social milieu & more people are using and becoming dependent on technology..

While recapitulating my project which is based on technology related to banking's Net-Technology i.e. ATM & Internet banking. It is observed that there are very many advantages & something few

disadvantages also, which may be phased out with coming developments.

As far as advantages are concerned customers using ATM & Net – Banking are getting fast & superior services. Which saves their time & energy. Simultaneously cases of fraud & phi sing – e-mails are some disadvantages which hopefully may be countered in future.

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