# AUTOMATED TELLER MACHINE

INTRODUCTION:

By using an automated teller machine or ATM we can perform different financial transactions such as cash deposits, withdrawals, transfer funds, information of account, ATM PIN change, and also linking the Aadhaar number to the bank account so that the interaction between the bank staff and the customer can be reduced. The automated teller machine (ATM) is an automatic banking machine (ABM) that allows the customer to complete basic transactions without any help from bank representatives. There are two types of automated teller machines (ATMs). The basic one allows the customer to only draw cash and receive a report of the account balance. Another one is a more complex machine that accepts the deposit, provides credit card payment facilities and reports account information.

BLOCK DAIGRAM:

The **block diagram of the automated teller machine** consists of mainly two input devices and four output devices. The input devices like card reader and keypad whereas output devices are speaker, display screen, receipt printer, and cash depositor.
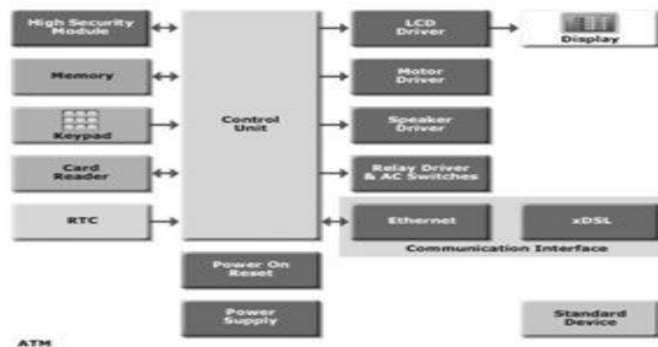
INPUT DEVICES:

Card Reader

The card reader is an input device that reads data from a card. The card reader is part of the identification of your particular account number and the magnetic strip on the backside of the ATM card is used for connection with the card reader. The card is swiped or pressed on the card reader which captures your account information i.e. the data from the card is passed on to the host processor (server). The host processor thus uses this data to get the information from the cardholders.

Keypad

The card is recognized after the machine asks for further details like your identification number, withdrawal, and your balance inquiry Each card has a unique PIN so that there is little chance for some else to withdraw money from your account. There are separate laws to protect the PIN code while sending it to the host processor. The PIN is mostly sent in encrypted form. The keyboard contains 48 keys and is interfaced to the processor.

OUTPUT DEVICES:

Speaker

The speaker provides audio feedback when a particular key is pressed.

Display Screen

The display screen displays the transaction information. Each step of withdrawal is shown by the display screen. A CRT screen or LCD screen is used by most of the ATMs.

Receipt Printer

The receipt printer prints all the details recording your withdrawal, date and time, and the amount of withdrawal and also shows the balance of your account in the receipt.

Cash Dispenser

The cash dispenser is the heart of the ATM. This is a central system of the ATM from where the required money is obtained. From this portion, the user can collect the money. The cash dispenser must count each bill and give the required amount. If in some cases the money is folded, it will be moved to another section and becomes the reject bit. All these actions are carried out by high precision sensors. A complete record of each transaction is kept by the ATM with the help of an RTC device.

ATM NETWORKING

The internet service provider (ISP) also plays an important role in the ATMs. This provides communication between ATM and host processors. When the transaction is made, the details are input by the cardholder. This information is passed on to the host processor by the ATM. The host processor checks these details with an authorized bank. If the details are matched, the host processor sends the approval code to the machine so that the cash can be transferred.
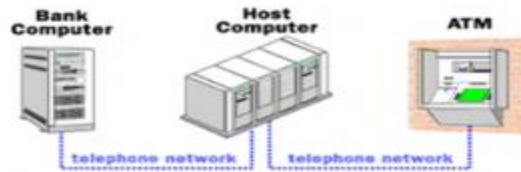
WORKING PRINCIPLE:

The automated teller machine is simply a data terminal with two inputs and four output devices. These devices are interfaced with the processor. The processor is the heart of the ATM. All the ATMs working around the world are based on a centralized database system. The ATM has to connect and communicate with the host processor (server). The host processor is communicating with the internet service provider (ISP). It is the gateway through all the ATM networks available to the cardholder. When a cardholder wants to do an ATM transaction, the user provides necessary information through a card reader and keypad. The ATM forwards this information to the host processor. The host processor enters the transaction request to the cardholder bank. If the cardholder requests the cash, the host processor takes the cash from the cardholder's account. Once the funds are transferred from the customer account to the host processor bank account, the processor sends the approval code to the ATM and the authorized machine to dispense the cash. This is the way to get the amount on ATMs. The ATM network is fully based on a centralized database environment. This will make life easier and secure cash.

ADVANTAGES:

- Automated teller machines are easily arranged in different areas so that every bank customer can visit the machine to execute any transaction.
- It is used to withdraw the money in a fraction of minutes so that time can be saved.
- To get an ATM card at present, the process is hassle-free because no documentation work is required. All the banks are providing an ATM card at the time of opening an account.
- ATM machines provide the transaction details to know the balance of the account holder
- Utility payments can be done by using an ATM card
- ATMs provide 24X7 service
- ATM is much secured because it can be used only when the person knows the ATM password.
- ATMs will reduce the workload for the bank employees.
- It reduces the cash-carrying because anyone can withdraw the money at any ATM center so it works like a cashpoint.

DISADVANTAGES:

- IT charges some amount once free transactions exceed.
- Once ATM card damages then cash withdraw is not possible.
- Possibility of cash robbery from ATMs.
- ATM pin can be easily hacked by criminals by operating an ATM.

- The risk of theft is high while going to ATMs.

FEATURES:

- Transfer funds between linked bank accounts
- Receive account balance
- Prints recent transactions list
- Change your pin
- Deposit your cash
- Prepaid mobile recharge
- Bill payments
- Cash withdrawal
- Perform a range of features in your foreign language.