Smart Frame Work of Using Iot in ATM's to Identify the Currency

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--**ABSTRACT**---

This paper presents a detailed study of a new framework structure for Automated Teller Machine(ATM) were IoT devices can be implemented to check the availability of funds present in the ATM , as the usage of ATM increase the demand for making them more open to satisfy the growing needs of the end user increases. This paper aims to fulfill this demand and to satisfy all the necessary requirements and difficulties faced by a user.

KEYWORDS: IoT, ATMmachines, mobilenetworks, Internet, Currency in ATM.

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I. INTRODUCTION

Automated Teller Machine (ATM) is well known systems typically used to carry out a variety of personal and business financial transactions. The existing ones provide instructions on the display screen for operation and a user is able to operate. In the proposed system if an unauthorized person accesses the user account knowingly or unknowingly an image of the person is captured. Using IoT devices in ATMs for a new development of transaction.

Automated Teller Machines (ATM) terminals are designed to facilitate easier withdrawal of money for bank customers. The number of bank transactions happening through ATM terminals nowadays is numerous which establishes the stability of the infrastructure in a great deal. There has been a research to offer several non-financial services along with the regular financial service offerings through ATM terminals but has never got implemented because of the challenges like the increased load on servers, security.[3]

CCTV cameras in London has put the platform for the cameras inclusion in ATM's after IRA's terrorist attack in Bishopgate in 1993[7]. After this idea IOT has come into the existence in different security concern fields.

Security in the ATM's has become major area to provide multiple protections in terms of electronic and physical theft. Machine to machine communication technology using Embedded Web Server using Linux operating system provide a robust security [8].

Implementation of Way 2 SMS as a third party security concern when a card has been accessed by unauthorized user, it is possible if the card holder has a mobile with him always so that any misuse card will be immediately SMS to the authorized person [9].
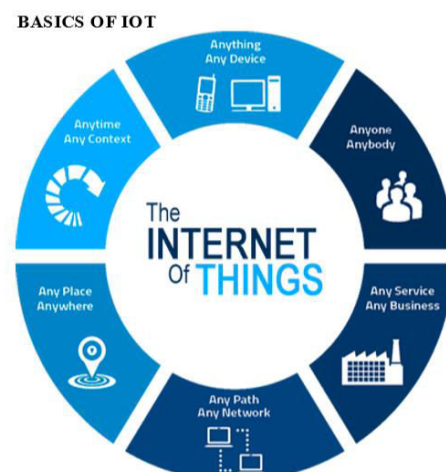
II. IOT (INTERNET OF THINGS)

Where the real, physical, and the virtual world interact with each other. It is the independent communication between the object that helps optimize operations, reduce costs, boost productivity, and improve lives. All of the connected dots and devices change the customer experience in banking The aim of this paper is to propose an architecture which enables the provisioning of several financial services through ATM terminals which helps the public user to know the cash details of the ATM machines present or no with the help of IoT device implemented in ATMs in positive manner.

Smart energy management system using IOT in ATM's using the microcontroller architecture will save some part of energy soaring by setting the threshold value of energy usage extension. [11].
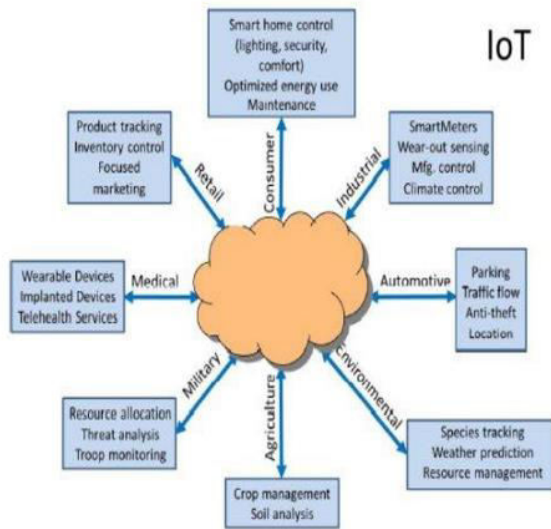
III. OBJECTIVES OF THE PROPOSAL

a) The aim of this proposal is to find the availability of amount present in ATM machines using IoT devices in positive way.

b) To propose a solution for reducing the problems faced by the public in finding the difficult to find available of amount present in ATMs in positive way [10].

[6]

8. APPLICATIONS OF IOT-

The increased use of devices by customers has led to an increase in IoT data. IoT will transform lives and changes the way business is undertaken. Today, everything is connected, wireless, or being wired up. Banks have to convert IoT data into valuable information, and thus, increase their market share and provide better services to their customers[5].

IV. EXISTING SYSTEM IN IOT

a. The Smart Home App

Smart Home is the clear winner for popular IoT apps. There are over 60,000 people that search "Smart Home" on the internet every month. There are 256 companies and start-ups that are jumping on the band wagon to offer this app to the world.

Funding for the start-up companies in the Smart Home development have a total funding of $2.5 . Names such as Nest (bought up recently by Google) and AlertMe are some of the big names in Smart Home start-up companies.[2]

b. Smart Retail App

This is a slow moving app but still one of the top ten. Still considered a niche segment, it does one LinkedIn post on a monthly basis compared to the 430 for Smart Home apps. It's based on advertising in the area of retail shopping. [2]

c. Smart Supply Chain App

This app is set out to make tracking goods easy when they're on the road. Suppliers are able to exchange information of delivery time and figure out where the delivery is at any given time. This has been on the market for quite a few years. It is being made more intelligent by the IoT and may just increase in popularity. Time will. Tell. [2]

d. Smart Farming App

Countries that are primarily focused on agriculture and farming will see that Smart Farming are going create efficiency. It is not widely popular at the moment as it doesn't fit into the magic categories of mobility, industrial and health.

IoT will change the way farming is done in those countries where the main industry is farming. The app will solve the fact that farming operations are remote and livestock are in high numbers. Being able to monitor the farm when you can't be there gives freedom that a farmer has never known. [2]

e. Wearable's App

The Apple smart watch was huge upon its release, an example that shows the wearable's app is huge. There are other companies that are bringing out IoT Wearable app innovations. Companies like Sony and the LookSee bracelet are also developing wearable IoT products. [2]

f. Smart City App

Smart City is a convenient way to overcome traffic management and waste management, to name a few. It makes your life more efficient when you live in the city, allowing you to get through morning traffic more easily or monitoring environmental efficiency.

Its main purpose are to solve city problems that come with so many people living in a small area. Everybody wants less noise and pollution in the city they call home which is what this app is promising. [2]

g. Smart Grids App

This app is going to use information about consumer and electricity supplier's behaviors. This is going to enhance the electricity experience. Benefits to the consumer include reliability of power and better prices.

Monthly, there are 41,000 searches on Google, proving that this app is greatly needed. [2]

h. Industrial internet

Industrial internet may not be so popular on Google but it does have a lot of presence on Twitter. It has the largest push for any app in the IoT industry on Twitter.

Gartner and Cisco say that that industrial internet has the highest potential of all the apps. These are two heavy hitting companies within the IoT industry so they know what they're talking about. [2]
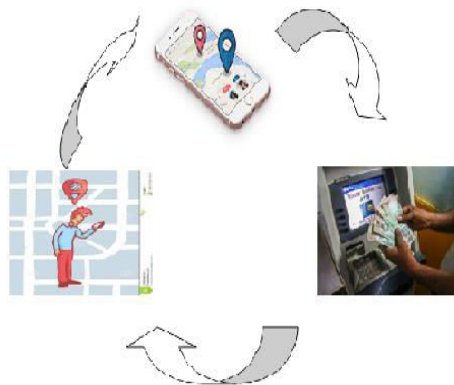
i. Connected Car App

There has been a lot of talk about the connected car app but it's taking a lot of time to develop. As the industry takes its time to comply with the tech companies, people are starting to get excited.

Some of the forward thinking car companies are starting to work with start-up companies to work on potential problems and solutions. If the auto industry doesn't pick up the pace, one of the big guys like Google or Apple will. [2]

j. Connected Health App

(*Digital health/Telehealth/Telemedicine*)

BENEFITS OF ATM:-

- ATM always functional with low maintenance cost
- Energy saving
- Quick heal of ATM (only those who depends on ATM initialization)
- ATM is more secure and safe with IOT. [1]

V. IMPLEMENTING AND WORKING OF IOT DEVICE IN ATM'S

As now a days we see many problems in ATM's facing in the main issues like insufficient amount in the ATM's. People will Google the location of nearby ATM's and go visit the place for withdrawal and face the problem of insufficient funds (amount) or ATM machines out of service

As people are getting tire of long procedure of inserting debit/credit card and finding that there's no money available in the ATM's hence we are implementing an idea of IoT devices in ATM machines .

As IoT devices are used in above mentioned application in the same way +present in the implementation of ATM's for example sensors using IoT, video capturing is placed inside the ATM machines .

The new IoT device which should be implemented should be able to detect that the amount is available or no and this device should not revile any kind of information about the amount present in the machine (Like total amount which is available in the ATM), already there is IoT devices used by the Google

Connected health is definitely one of the most talked about apps as they connect health care systems and smart devices together. Included in the equation is digital health, Telehealth and telemedicine.

This app is going to enhance the wellbeing of the population, making everyone feel alittlesafer when health is an issue. Breakthroughs are expected soon as large scale start-up companies know that the world waits. [2]

companies to tell the information to the people to find the location of ATM's
In the same way this IoT device should help to gain the information of availability of amount or not in the ATM machines

VI. ADVANTAGES AND DISADVANTAGES OF IMPLEMENTING IOT IN ATM MACHINES

ADVANTAGES

In the fast growing modern generation the people are equally running with time. Those helps in the time saving of the people to find the ATM which as cash for withdrawal, Helps in reducing the time for traveling to one ATM to another, Helps in the development of new technology in fast developing countries.

DISADVANTAGES

His IOT device may face the problems in the field of networking or getting the correct signals, this may increase risk in security, thischip can be hacked by hackers for different benefits of cash, and they may face the issue like over server issue

VII. CONCLUSION

The idea of implementation of IoT devices in the ATM machines is to develop the performance of the developing technology the field of ATM to rescues the main problem faced by the public in daily life this help public to find the nearby ATM which as available amount in it which helps saving the time and energy of the public in searching the ATM which as available for their withdrawal.

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