Enabling of Online Biometric Transactions(OBT)

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Abstract

Security is one of the most important concerns a modern man has ever faced, let it be like transactions of money or goods etc. This issue needs to have a permanent and a safe solution. However the solution provided should be used with ease. In order to overcome these adversities we solicit the system of Online Biometric Transaction. In this system, the transactions are made with the help of a finger using the finger print authentication system. The equipments that are required for the functioning of this system are Biometric scanner, Transaction gateway license, Bank Account. The main reason for Geometric transaction is that each and every individual will have a unique finger pattern which cannot be duplicated. By using this feature we can eliminate the usage of transaction cards similar to credit and debit cards.

Keywords: OBT (Online Biometric Transaction), Biometric Scanner, Finger Print, Transaction Gateway, Bank Account, credit and debit cards.

Introduction

This technology holds all the information about the customer who is using this technology. The huge database holds the fingerprints of all the people using this technology. Whenever someone swipes his finger across the device, it checks with database if the fingerprint is available or not and if it is available, it will connect to the bank account to continue the transaction. This OBT can help in making transactions without carrying money. The fingerprints of different people are different but in some cases, they might be very similar, to overcome this, we introduced to input a password along with the finger swipe. There will be few centers established specially where people can register their fingerprints along with their bank account so that the transactions can be made through OBT.

We will also include the aadhar details of the person when registering with the OBT. The fingerprint machines are connected to few recognized and licensed gateways through which the transactions can be made. Every transaction has to undergo the credential checking process where the fingerprint is deeply scanned and

checked with databases to make sure they are perfect and can be processed for a transaction. People will have a separate account from where they can know all the information about the transactions that are made through OBT.

Technology for obt

The main reason why we do consider the system analysis as the most important aspect of the project is that it tells each and every flaw of the project. It also tells every possiblity of the project for it to develop in each and every possible stage present during the development of the project. The reaserch and the development of the project is mainly connected to such aspect only The system must be evaluated from the technical point of view first.

The assessment of this feasibility must be based on an outline design of the system requirement in the terms of input, output, programs and procedures. Having identified an outline system, the investigation must go on to suggest the type of equipment, required method developing the system, of running the system once it has been designed. The developing system must be justified by cost and benefit. Criteria to ensure that effort is concentrated on project, which will give best, return at the earliest. One of the factors, which affect the development of a new system, is the cost it would require.

The present system uses hand by hand sharing transactions which means a human either pays the other by hand or by using credit and debit cards which is ineffective during transportation. For example, the money might be lost or cards might be lost which will held us in very unstable position. There were situations when people lost money and were in trouble reaching their destinations. When the transactions are made hand by hand, a lot of black money gets generated but if its through a machine, it can be done securedly without any kind of misuse of the money.

Figure 1. Model of traditional ATM

The proposed system allows you to do a transaction just with a swipe of a finger followed by a password. We collect the information of the users and then store it in a huge database. The first and foremost data that is needed is their fingerprint and then their address proof followed by identity proof. Everyone submits these information to the respective department of concern. These transactions are very secured as the fingerprints are unique. Compared to the transactions made in the existing system, the money using OBT can be transferred securely and will make sure there is no misuse.

The devices cost around Rs 450 which is only sold by the government or the RBI and can be distributed to only those who are verified and licensed. For example, a shopkeeper has this OBT device, if a customer comes to his shop and buys few items, the money is paid to the shopkeeper through this device. He simply swipes his finger on the device and enters his personal pin which validates his account and then checks for his bank account for the transaction to be done.

Once his bank account gets verified, he will be asked for 3D secure password which further allows him to transfer the money from his account to the shopkeeper's account. This will help the government in checking the income tax of the shopkeeper paisa to paisa. The shopkeeper also cannot ask for more money.

Figure 2.Model of Biometric machine

The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. Considering these system analysis, the

feasibility of the solicited system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential. The feasibility study is the important step in any software development process. This is because it makes analysis of different aspects like cost required for developing and executing the system, the time required for each phase of the system and so on.

If these important factors are not analyzed then definitely it would have impact on the organization and the development and the system would be a total failure. So for running the project and the organization successfully this step is a very important step in a software development life cycle process. In the software development life cycle after making an analysis in the system requirement the next step is to make analysis of the software requirement. In other words feasibility study is also called as software requirement analysis. In this phase development team has to make communication with customers and make analysis of their requirement and analyze the system.

Figure 3.General System Life Cycle

By making analysis this way it would be possible to make a report of identified area of problem. By making a detailed analysis in this area a detailed document or report is prepared in this phase which has details like project plan or schedule of the project, the cost estimated

for developing and executing the system, target dates for each phase of delivery of system developed and so on.

This phase is the base of software development process since further steps taken in software development life cycle would be based on the analysis made on this phase and so careful analysis has to be made in this phase. Though the feasibility study cannot be focused on a single area some of the areas or analysis made in feasibility study is given below. But all the steps given below would not be followed by all system developed.

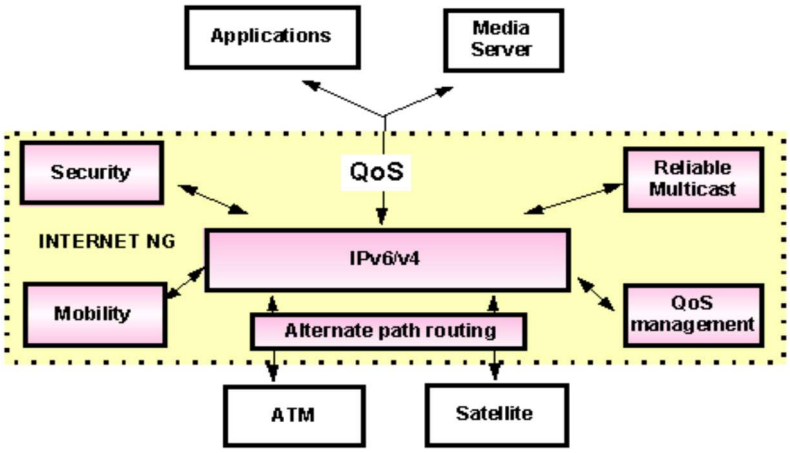

Figure 4.Techinacal feasibility study of OBT

Is the cost of developing the system high or does it meet the budgeted costs. That is a cost benefit analysis is made. In other words an analysis is made on cost feasibility of the project. This helps in identifying whether the organization would meet the budgeted costs and also helps the organization in making earlier and effective plans for meeting extra costs because of the system development. Analysis is made on what software to use for developing the system.

This study and analysis would help to choose the best implementation for system and the organization. This feasibility study includes factors like scalability, how to install, how to develop and so on. This feasibility study in short includes the analysis of technical areas. This analysis helps the efficiency of the system developed to get improved. This is because by choosing the correct technology by making analysis on the needs of system helps in improving the efficiency of the system.

a. Advantages of OBT

There are many advantages of developing OBT and some of are summarized as follows.

- Reliable System
- Ease to Implement
- Customer need not physically carry credit or debit cards
- Utilizing the concept of unique Biometric to each individual
- One finger print impression is sufficient as replacement for card.

b. Structural Description

The structural description of the system says the various forms of structural representation of the working and the functioning of the system. This can be told as the one of the most important phase which is seen in any kind of project modules that are all being done.

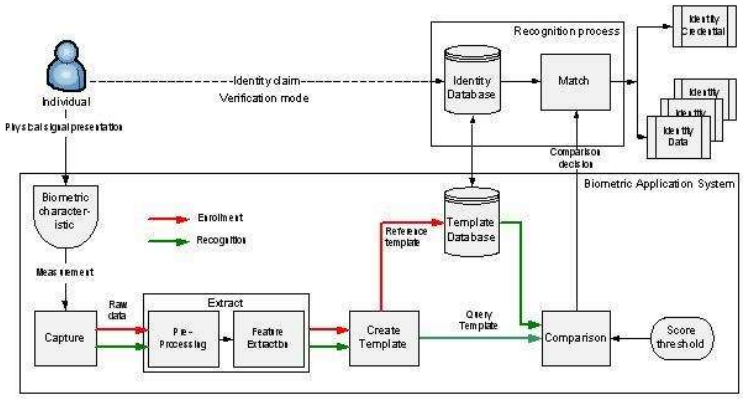

Figure 5.Structural description of the OBT

c. Architectural Description

The architectural description of the system mentions the kind and the range of the architecture which is used in the creation of the system.

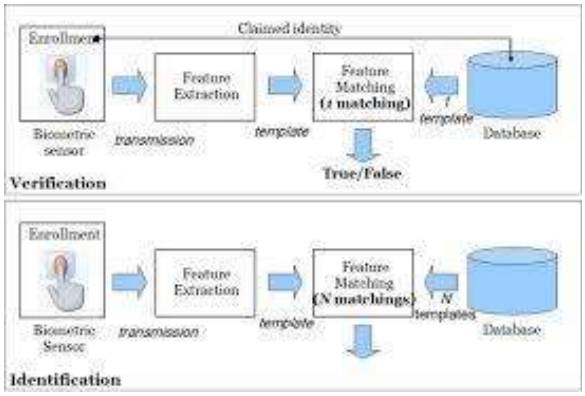

Figure 6.Architectural description of OBT

Result and Discussion

a. ADMIN LOGIN MODULE

This module provides administrator related functionalities. Administrator can view all the details except the passwords of the registered people. He can add new users to the OBT Structure.

Figure 7.Admin login module of OBT

b. ADMIN HOME PAGE MODULE

Figure 8.Admin home page of OBT

c. USER MODULE

The user has an access of the device where he can only do a transaction i.e. only payment. He can use it in all the shops or the places where the person has to make a payment making sure the payment receiver has this device.

Figure 9.User module of OBT

Conclusion

The main issue that we wanted to put forth through this paper is that security in this modern era should never become a constraint. There should by all means be the best of the equipment available for us in retaining our security. Hence we can eradicate and eliminate the age old and traditional way of carrying many cards for different purposes.

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