

Centralized Smart Card

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ABSTRACT

In today's world wherever we go we have to carry a lot of documents with us. For example, for identification purposes we have to carry Aadhar card, passport, Pan card etc. If we own a vehicle we have to carry all the related documents related to it such as R.C book, Insurance, P.U.C. For a student's admission into college also various documents are required by the individual such as mark sheets of HSC and SSC, school leaving certificate, caste validation certificate and many more. Carrying all these documents with us all the time is not always possible and if we don't produce these items when asked at some particular time, it can lead to some kind of fine or in case of process like admission of a student delay the process by a day or two.

This is the era of technological development in each and every phase of life. Different cities are turning into smart cities. So in context with this smart city initiative we are proposing a new system that would bring a lot of change. We are proposing a centralized smart card system through which we are going to minimize most of these paperwork. Every individual has to just carry this smart card which will hold all of his/her important details. In case of verification of documents the officer just has to scan the smart card and all the details will be displayed on his desktop. This technology will bring a change in following ways:

- 1) Saves time.*
- 2) Saves overhead of carrying documents.*
- 3) Supports green initiative.*

Keyword: - *Smart Card, Cloud Computing, DigiLocker, and Documents.*

1. INTRODUCTION

We are implementing a system which will reduce the paperwork and works on smart card. The user will visit the authenticated booth to issue the smart card, as the individual visits booth with their documents. All the documents will be verified by the authenticated person and it will be uploaded to cloud database by the authenticated person. The individual will be assigned a smart card with a unique number on it. As the documents will be uploaded to cloud database the user can use it any time.

1.1 COLLEGE

User goes to take admission gives their smart card. The authorized person will swipe user's card. All the information will be fetched to the college system from our database. It will save time of both user and the college.

1.2 R.T.O.

If individual gets caught by R.T.O. Individual has to show the documents. Instead of showing documents they will show their smart card. The officer will enter the unique number provided on the card. If all the documents are valid then it will show valid otherwise it will show which document is invalid and it will generate a fine.

2. LITERATURE SURVEY

DigiLocker is a “digital locker” service launched by the Government of India in February 2015 to provide a secure space for storing the documents of Indian citizens. The storage space (maximum 10 MB at the time of launching and now upgraded to 1GB) is linked to the Unique Identification Authority of India (Aadhaar number) of the user. The space can be used for storing personal documents like University certificates, Permanent account number (PAN) cards, voter id cards, etc., and the URIs of the e-documents issued by various issuer departments. There is also an associated facility for e-signing documents. The service is intended to minimize the use of physical documents and to provide authenticity of the e-documents. It will also provide secure access to government issued documents. It is also intended to reduce administrative expenses of government departments and agencies and to make it easy for the residents to receive services. To sign up the user must possess an Aadhar Card and a mobile number linked to it (Now linking to Aadhar number is not mandatory - You just need a mobile number to create an account in DigiLocker).

DigiLocker is one of the key initiatives under the Digital India Programme. This was released by the Department of Electronics and Information Technology (DeitY), Government of India.

3. SYSTEM ANALYSIS AND DESIGN

3.1 SYSTEM ANALYSIS

This section contains control flow i.e. start to end process which is done by user to use the system and also contains data flow i.e. how documents gets stored and retrieved by the user and operators.

3.1.1 CONTROL FLOW

First user will provide all the original documents to the administrator/authorized person to enter all the details/information of documents to the cloud server. If all the documents are valid then information will get store and user can also provide documents pdf which is going to upload on the cloud server. After that user will get the smart card with all the information get filled. Wherever user wants to access the documents user will swipe the card through card reader and enter the pin number. If pin number is correct then the required document by particular operator get accessed.

User has its own account. User will login to that account and can check their personal details/information. The user can also check the validity of the documents.

3.1.2 DATA FLOW

User can access the documents anytime anywhere. All the user those who wants to store or update the documents and information should visit booth with original documents. Then an authorized person will make an entry to the system and store on cloud server. Figure a showcases the basic idea of our system. Users have their documents stored on the cloud server so whenever they go to the office then the operator can access their documents from the cloud only when the credentials of the user are verified.

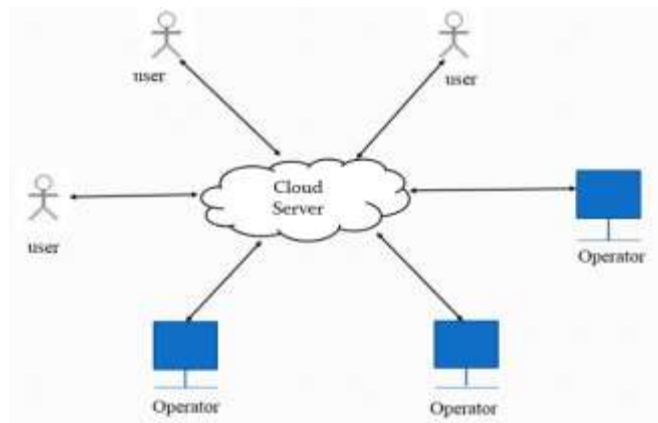


Fig a: Data Flow Between User, Operator and Cloud Server

3.2 SYSTEM ARCHITECTURE

The user has to carry all his documents to the specified booth. The administrator present their will verify these documents and after verification these documents would be uploaded on the server. When the user goes to the operator, the operator will be able to access these documents and would be able to store those documents needed by them on their local server.

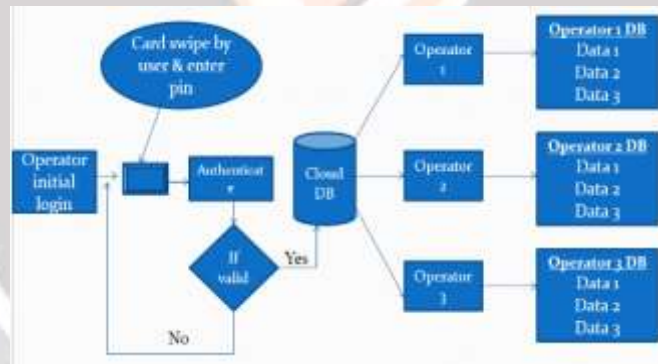


Fig b: Accessing information through smart card on various places

Figure b depicts the actual scenario that happens when a user goes to an office. Operator swipes the user’s card and asks the user to enter the pin. If the pin is correct then the operator has access to all those documents that are required by the operator and if the user enters wrong pin, then the operator will have no access to those documents and the user would have to re-enter the pin.

4. ADVANTAGES

- It requires less storage space.
- Information retrieval requires less time.
- Proper and quick authentication.
- Carrying a smart card is easier than carrying documents.

5. LIMITATIONS

- Requires internet connection to access the documents.
- If card is lost then the user has to lodge a complaint and has to wait for the new card to arrive from the office.

6. RESULTS

We have implemented a system in which allotment of the RFID card is working properly. Separate login for each department is working properly. Admin login can upload documents and modify changes if permission given by user. There is a column which shows validity of document which is working properly. A separate login is given to user just to check its document.

7. SCREENSHOTS

The system has a login page Figure c shows the login page of our system



Fig c: Login page

When we login through the Admin login ID and password its show the form that is to be filled and the information will be uploaded to the cloud. Figure d show the form.

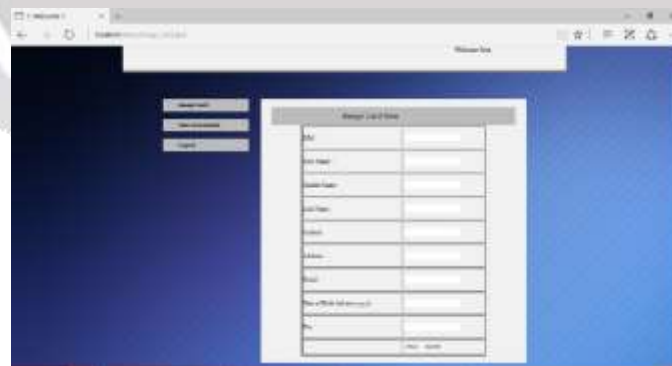


Fig d: Form filling web page.

After filling the details, the user can give their documents to the authorized person and they will upload documents to the server. The documents can be viewed to the user and the place where it is required, Through the smart card. Figure e shows the documents page.

S.No	Name	Address	Contact No.	Document Name	Category	Date	Status	Action
1	Arvind	Mumbai	9876543210	Arvind's CV	CV	2015-10-10	Active	View
2	Mukund	Pune	8765432109	Mukund's ID Card	ID Card	2015-11-15	Active	View
3	Vitthal	Chennai	7654321098	Vitthal's Passport	Passport	2016-01-20	Active	View
4	Arvind	Mumbai	9876543210	Arvind's Bank Statement	Bank Statement	2016-02-28	Active	View
5	Mukund	Pune	8765432109	Mukund's Marriage Certificate	Marriage Certificate	2016-03-10	Active	View
6	Vitthal	Chennai	7654321098	Vitthal's Aadhaar Card	Aadhaar Card	2016-04-05	Active	View
7	Arvind	Mumbai	9876543210	Arvind's Driving License	Driving License	2016-05-20	Active	View
8	Mukund	Pune	8765432109	Mukund's PAN Card	PAN Card	2016-06-15	Active	View
9	Vitthal	Chennai	7654321098	Vitthal's Voter ID	Voter ID	2016-07-10	Active	View
10	Arvind	Mumbai	9876543210	Arvind's School Certificate	School Certificate	2016-08-05	Active	View

Fig e: Document page

8. CONCLUSIONS

So as we discussed how carrying documents for different purposes can become a cumbersome job for users, these documents can even be fabricated using different tools. These fabricated documents can be used by different individuals for their own benefits or even impersonating different individuals. Looking at these problems we are facing in our society we are developing a centralized system to store all our important documents together which can be accessed anytime by just scanning our card and help in overcoming the overhead of carrying different documents for different purposes. As these documents will be verified by officials before uploading then the problem of forged documents that are used by individuals will eventually come to an end. The system also works well in context with Digital India and the Green Initiative.

6. REFERENCES

- [1] P. P. Arvind, M. P. Vitthalrao, J. M. Mukund, "DIGILOCKER (DIGITAL LOCKER- AMBITIOUS ASPECT OF DIGITAL INDIA PROGRAMME.)", GE-IJMR VOLUME - 3, ISSUE- 6 (June 2015).
- [2] DigiLocker-<https://digitallocker.gov.in/>
- [3] N. P. Bhojak "Assess the awareness level of people on Aadhaar Card as public wellbeing", IJIMS, 2015, Vol 2, No.5, 88-95.
- [4] S. S. Amrawat, "AADHAAR Possibilities with 1 to n authentication", IJSR Publications, Volume 5, Issue 9, September 2015.