

Document Digitization using RFID Cards

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Abstract - Now a days people are dependent on digital way of doing any work. But there is still one case where we are using papers for doing that work which is related to educational, medical etc. Peoples carry le of documents while going for work such as for issuing driving license. There is one solution on this problem by replacing bunch of documents with just single RFID card. A data security integrated system, based on the server, which uses RFID technology to combine functions of physical access control, computers access control and management. This tag is an additional authentication factor required to gain permission to use the cryptographic smart card for signing a document. The presence detection/access control function is comprised of a wired/wireless sensor network of readers that is installed to detect person information with tags. In case if card is stolen or lost we have a block option to block particular card for document access.

their documents in a hassle free manner. Public Sector and Government Agencies deal with documents which range from public view documents. Storing all these documents as physical records not just consumes a lot of space.

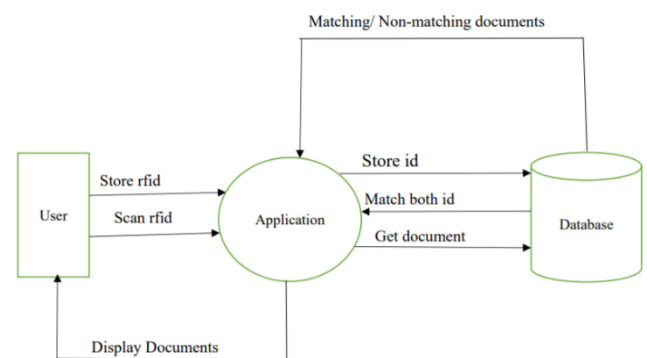


Fig 1. System Architecture

Key Words: RFID Reader, RFID tag, document, Secrete key

1. INTRODUCTION

Now a days the processes or services which are especially for the people, to get these services properly and within time are important. If people go to buy a SIM card to mobile shop, then they have to cross verify the fingerprint of that particular user or customer with the Aadhar card number. The process becomes hectic and so lengthy till SIM card activation. There are so many such services which take too much time, manpower and system resource. Such services are related to RTO, College admission, Bank, Passport and so many. These all ser-vices are only for the peoples but these are so time consuming and there are also the chances of fraud in getting services. So it is important to make all services digital. Proposed system uses server as cloud for storing the necessary documents. The particular documents they use where they become necessary. Suppose I opening an account in bank then I need to just carry a RFID tag. The bankers will scan that card. All the necessary documents will get display there without carrying document

2. Body of Paper

For Public Sector and Government Agencies with tens or hundreds of thousands documents, a document management system is becoming a mandate to organize, index and control

The research done by us was focused on digitization, and also focused on IoT implementation. We came across many research papers related to these fields. The digitalization was used to provide security to the data stored in the database. Cryptography was used to store the documents in the database in an encrypted format. Documents which were stored was in image format, so modified version of the AES algorithm is used. A smart card like RFID card was provided to users at the time of registration, and fingerprint of users was taken. RFID card contains a 32-bit unique number which was assigned to the respected person's fingerprint. RFID card and fingerprint were used for authentication and also to provide double security. RFID reader was used to scanning the RFID card fingerprint scanner was used to scanning the fingerprint of the user. Authentication data was stored in the database at the time of registration and these data was then used to authenticate the user. Arduino was used for providing power supply to the RFID reader and fingerprint scanner, and also used to transfer data from the reader and scanner to the system.

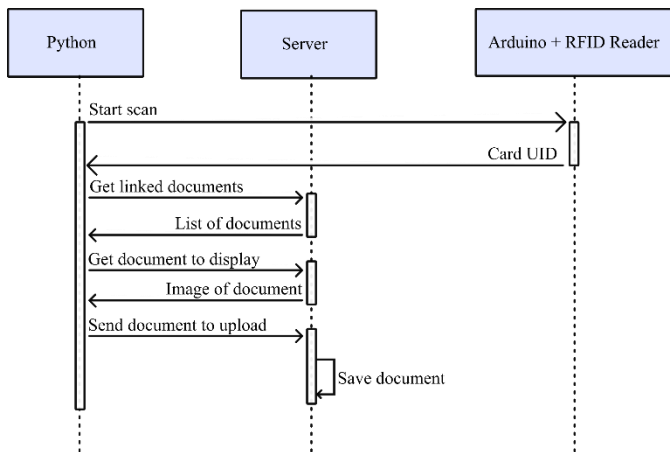


Fig 2. Sequence Diagram

3. CONCLUSIONS

The web application is to be created which will provide a system that stores all types of documents digitally, which will reduce the paperwork for the organizations having a lot of paper trails. We can block a particular card in case of lost or damaged card.

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