

NFC Based Unique Identification And Healthcare Data Collection

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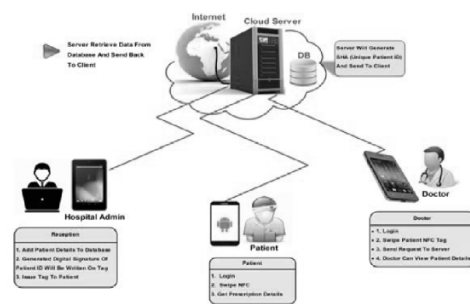
Abstract- The project entails facilitating better healthcare services using NFC enabled devices. The NFC enabled devices offer an easy and secure way for self-reporting of health status information. The project involves use NFC cards. Thus the doctor can access the patient's data through just a tap. medical data is confidential information that must not openly be available to anyone with physical access to the storage media. We make a technology to provide secure and quick access to medical information. It is very important for the treating doctor to properly document the patient under his care. Medical records form an important part of the of a patient. It is important for the doctors and medical establishments to properly maintain the records of patient . It will help them in the scientific evaluation of their patient profile, helping in analysing the treatment results, and to plan treatment protocols. Medical records include a variety of documentation of patient's history, clinical findings, diagnostic test results, preoperative care, operation notes, post operative care.

Keywords- NFC tag, android app.,NFC Mobile.

I. INTRODUCTION

1.1 Problems On Hand

Our aim is to create a system that can use NFC to give a person a unique id that can never be erased and will prove to identify a person, we want to create a system which will help India & its government to digitize India. Also to create a system that can use NFC to reducing the paper work required during the registration of the patient and also eliminates the disadvantages of using RFID based system. It is very important to maintain efficient software to handle information of a patient. This application provides away to record this information and to access these in a simple way.



1.2 Basic Concept

The planned Near Field Communication (NFC)tag is supposed to hold emergency data. Near Field Communication (NFC) technology to provide secure and quick access to medical information. Thus the doctor can access the patient's data through just a tap. medical data is confidential information that must not openly be available to anyone with physical access to the storage media. We make a technology to provide secure and quick access to medical information.

II. PROBLEM STATEMENT

Implementation of smart mobile application to create a system that can use NFC to give a person a unique id that can never be erased and will prove to identify a person, we want to create a system which will help India & its government to digitize India. Also to create a system that can use NFC to reducing the paper work required during the registration of the patient and also eliminates the disadvantages of using RFID based system.

A) System Architecture

The Block diagram of the proposed system is shown in figure NFC tag and Android App.

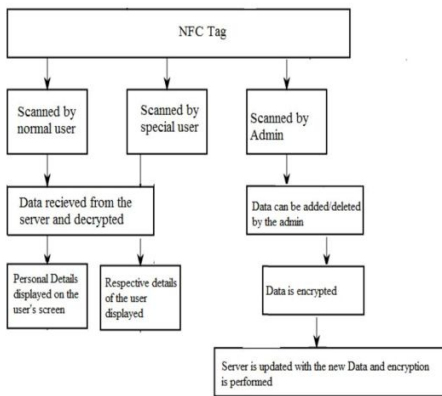


Fig. System Architecture Diagram

Module Descriptions

1)NFC Tag Reader/Writer

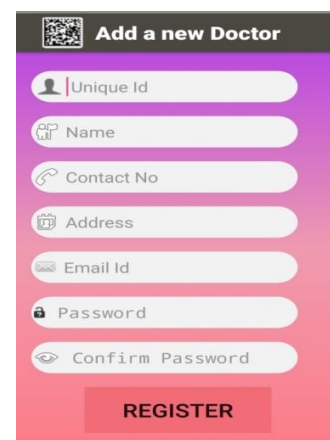
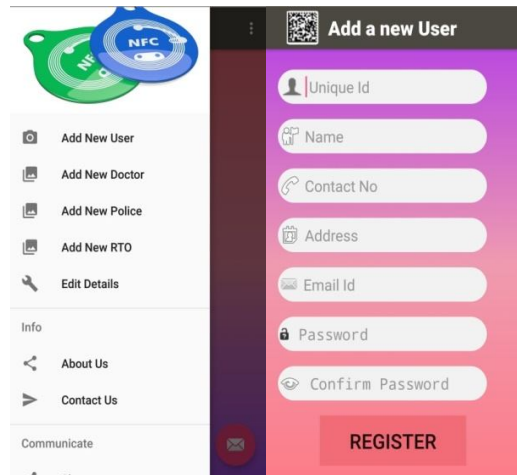
The writer/ reader will be in-built so that users do not have to download separate NFC reader/writer, for adding tags and reading others tags. This also makes it unique and secure form other general tag readers.

II) Android App

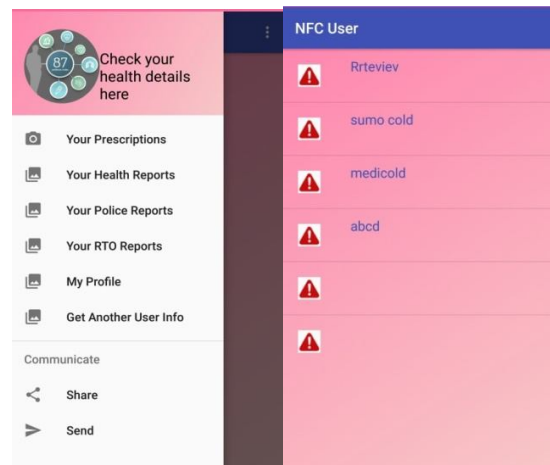
Android app is developed to provide digitalize record of patient to the doctor using NFC tag reader and writer.

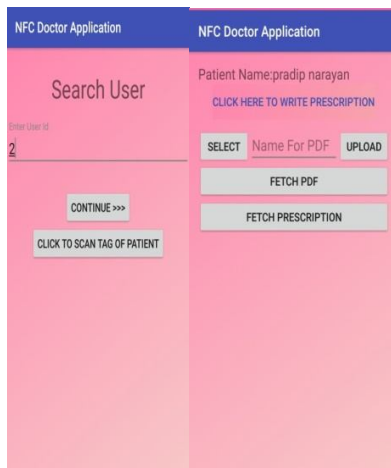
III. WORKING OF SYSTEM

In this system for the moment four member plays the role mainly doctor, patient, administrator, accountant. If a patient visits the hospital for the first time the administrator fills up the information of the patient and the information gets stored directly on the server after that the administrator provides NFC tag to the patient and administrator writes the pid that is patient id on the tag and then delivers to the patient. Afterwards when patient visits doctor cabin he gives his tag to the doctor he taps on the tag by NFC enabled mobile phone and get the details of the patient from the server. The accountant does the same and maintains the expenditure of the patient related to hospital. The administrator also does the job of adding new doctor or accountant details in the hospital. The specific requirement for such system is wi-fi or gprs connection, android os 2.2 and above and NFC enabled mobile phones.

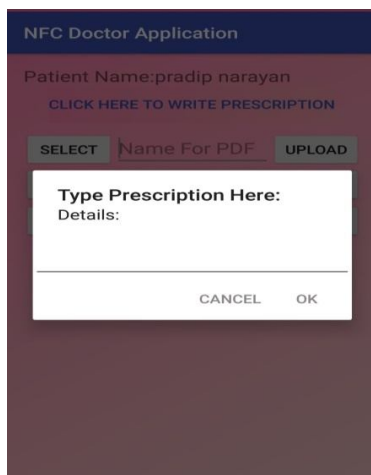


(Admin Login)





User Activity Doctor Search User



Adding Precaution

IV. FUTURE SCOPE

In future NFC devices can be made independent of any other equipment, like mobile phone in our case. It can be in the form of a small chip consists of passive NFC tags attached to patient body and there can be active NFC receiver attached in the patients environment. This active NFC receiver can also be placed in several places in hospital. In this way, it is also possible to find the patient location..

V. CONCLUSION

In this work, we have proposed applications based on NFC enabled Android mobile devices for improving healthcare and criminal system process for secure object identification on an external tag or mobile device itself. The applications are simple to use with a simple touch of NFC for secure communication. This will improve the health flow in crowded hospitals of developing countries like India as well as of developed nations. This also supports digitalization of

India. With the help of this system paper work is reduced also there will be also reduced rate in fake documents and criminal activities which occurs through fake documentation. As NFC is inside a body there is no need to handle it every time so that there is no any chance to loose it. Overall this system is user friendly, efficient and secure.

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