

## NFC based Unique Identification & Healthcare Data Collection

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**Abstract** – NFC is short range communication technology which provides two-way interaction between devices. In a Health care sector, NFC is not only used to reduce the health care costs but also provide automatic and streamlining patient identification system. NFC technology can be available in any form such as NFC tags which stores short information in it as a unique identification system.

**Keywords** – NFC chip, smart phone, NFC reader, Medical record, Criminal Record, .

### 1. INTRODUCTION

Nowadays, life is too fast. Each and everyone of us is having some documents related that includes Aadhar Card, PAN Card, Ration Card, Driving License, Medical Reports and many more. It is very difficult to carry all these documents at everyplace which causes a lot of inconvenience. So, In this paper, having proposed a system with NFC chip mounted in a

Objectives:

1. To maintain digitized information of every person in India.
2. Provide easy access to database of Documents of the every citizen.
3. Provides a database for person's background and criminal offence(if any) which will be helpful for the law of enforcement.

### 2. EXISTING SYSTEM

If the documents are urgently needed and in case those particular documents are not already carried by the person, then, that person will face different problems.

In the proposed system, this card will be very useful for whenever the documents are needed, only scanning the card will verify the documents and needs will be fulfilled.

1] NFC based Secure Healthcare Monitoring System:-

It Present a system using NFC-enable mob phone for facilitating the patient in a low-source environment. The patient can use them for self-

human body which will uniquely identify that person. There would be a centralized system, where all the documents are scanned and are uploaded on to the cloud after verification by the respected authority. Now, when the reader scans the chip, it will give unique value which will give the documents of that particular person in user's android application.

help. Doctor can use this for monitoring patient health. With the recent emerging technologies in mobile devices involving secure credential storage, larger storage capability, wireless communication interfaces they can be used in the healthcare for gathering health parameters and also for healthcare.

The very important aspect of health care is Privacy and security. System propose that the patient should retain only primary part of the record in HER electronically. A Health-card retained on a mobile device can retain the entire EHR including reports and tests. An authorized medical provider can access securely the permitted portion by a simple tap of mobile device.

### 3. PROPOSED SYSTEM:

The objective of the project is to make a system which will provide the details of any user at any time. The NFC tag will be implanted in the body of the user. This tag will contain the unique id of the user which is linked to the Aadhar no. of user. The id when scanned with our mobile application will provide the data about the

user according to the scenario it is being scanned in. Thus, the data security and confidentiality will be provided to user's data. NFC provides high level of security to data. The data will be authenticated and validated by the admin.

**Special User Module:**

Special user such as Doctors, Traffic Police, Government officials etc will be able to : Scan user NFC tag to get the info about user. User such as Doctors can even upload new medical records of the individual after verification form Admin.

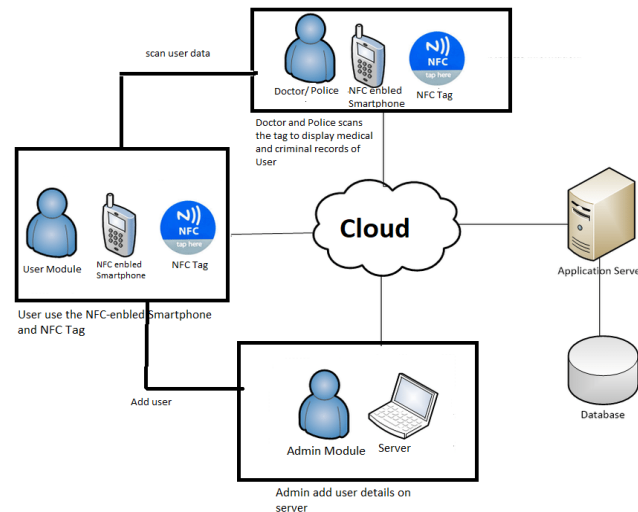


Fig -1: AECHITECTURE OF PROPOSED SYSTEM

**A. Admin Module:**

Admin will be able to: Verify and add the new user's record .Add the user's with special privilege. e.g : Doctors, Police officials etc. Validate the data provided and update the data of users as per demand.

**B. User Module:**

User will be able to:  
 Scan the NFC tag of any person to get the basic info of his/her.  
 Request for registration to Admin if new to system.  
 Will be provided unique ID and NFC tag embedded into the body.

Server & Database: Database, MySQL  
 Programming language: Android  
 Type: 3 Tier Architecture  
 Data: Medical History Important Documents  
 Police Record.

**C. Security:**

NFC id will be linked with our Aadhar number  
 NFC id is unique per tag so if someone tries to clone the tag it would not be possible due to Aadhar number linked with the NFC tag assigned to the person. Data at the server will be encrypted. Data communication between the user app and the

database will be encrypted, which will avoid the cloning of data. The AES Algorithm will be used for data security purpose.

**4. FEASIBILITY STUDY:**

**III.A. Software Feasibility:**

1. Android Studio IDE.
2. JDK 1.8
3. PHP

**III.B. Hardware Feasibility:**

1. Android mobile.
2. NFC Cards.
3. NFC Reader.
4. Server storage.

**SCOPE:**

The scope of the project is:

1. The system will provide complete security to the user's data.
2. The data will be authenticated and validated by the admin.
3. The admin will add the user and other authorities such as doctors and police officials.
4. The unnecessary exposure of data is avoided to all and only the data required by the person will be provided.

5. NFC provides high level of security to data.

## **5. CONCLUSIONS**

A paperless system which will make the Identification of a person more easy and authentic. Use of NFC tags increase authenticity of data as they cannot be overwrite.

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