

# CLOUD BASED HEALTHCARE SYSTEM

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**Abstract:** Opportunities for using computer technology have improved in the last few years with the growing population of computer users in India, even among older age groups, supported by a proliferation of health apps.

In earlier system, the patient had to face a lot of paper work and time-consuming formalities while availing to small critical healthcare services. Interconnected Healthcare system is a web application which helps in the better interaction between patient, doctor, pathologist, and pharmacist. It helps to digitize the working of the healthcare system. With the help of internet, the service can be accessed even in the remote and rural areas. This will help to maintain the transparency and can be monitored by the government or vigilant organization.

**Keywords-** web application, cloud computing, medical platform.

## Introduction

Interconnected healthcare system(IHS) is a web application which establishes the network between doctors and the patient. It is a web based project so user can access the details from anywhere on the internet. IHS comes under the domain of “web technology”. The digitization of the healthcare system will improve the quality of the service provided to the patients and will help to minimize the unethical medical practice.

The main aim of this application is to reduce paper and manual work. Doctors can have full access to patient information. Patient can more easily access their records from their doctors and track their own health. Available in rural areas. Super Admin can maintain and check available doctors.

This will help to improve the interaction between the doctor, patient and pharmacist and services provided by the hospital.

## Objective

- To digitization of the healthcare system.
- To centralization of the database using cloud

## Literature Survey

### 1. Improving Healthcare Delivery with the Use of Online Patient Information Management System

A research was conducted in Zambia, a remote and rural location in Africa. Their traditional healthcare management mainly consist of the use of the paper work was replaced by the advanced internet based advanced healthcare system.

The traditional working of the hospital is a time-consuming job because of lots of working and formalities are done on paper and lots of the medical authority were involved to do even the simple task such as medical inspection, tests, or the prescription of the medicine.

When the working of the hospital was digitized then there was huge improvement in the quality of service and the delay in time

required to get medical attention reduced as the patient can get appointment and the prescription quickly.

## 2. Cloud Computing

Cloud computing is an information technology (IT) model which enables the limitless access to shared pools of configurable resources (such as computer networks, servers, storage, applications and services), which can be rapidly provisioned with minimal management effort, over the Internet.

With the help of cloud computing the users and enterprises with various computing functionalities and capabilities to store and process data either in a privately-owned cloud, or on a third-party server located in a data center, thus making data-accessing mechanisms more efficient and reliable. The backbone of the cloud computing is the sharing of resources to achieve coherence and economy of scale, similar to a utility.

## 3. Extremely effective CRM Solution Using Salesforce

Salesforce CRM (Customer relationship management) is the cloud based customer service. **Salesforce** is the primary enterprise offering within the Salesforce Platform. It provides companies with an interface for case management and task management, and a system for automatically routing and escalating important events.

The Salesforce customer interface provides its user or customers the ability and tools to track their own cases, includes a social networking that enables the user to join the conversation about their company on social networking websites, provides analytical tools and other services including email alert, Google search, and access to customers' entitlement and contracts.

**Force App Cloud** is a platform as a service (PaaS) that allows developers to create multitenant (single instance of software runs on a server and serves multiple tenants) add-on applications that integrate into the main Salesforce application & Force applications are hosted on Salesforce infrastructure.

Force applications are built using declarative tools, backed by Lightning and Apex (a proprietary Java-like programming language for Force.com) and Lightning and Visualforce (an XML syntax typically used to generate HTML).

## Proposed Work

The patient can view his medical record and the medical history. Patient can see the prescriptions and the medical report. Patient data will be updated by the doctor.

Doctor can view the medical data of the patient. Pharmacist will give the medicine prescribed by the doctor and the pathologist will upload the medical record which will be required by the in this web application, we are creating a centralize database where all the information will be stored. With the patient id, the information can be access by doctor as well as patient.

Hospitals and other healthcare delivery settings employ different medical devices in treating patients. Through this, patient doesn't have to carry the files. If the patient wants to switch the hospital

then the doctors can easily access their previous records through the centralized database. Patient can take appointments from hospital.

### Functional module

#### Admin

- View and update the patients' medical report and medical history.
- Add and remove doctor, pathologist.

#### Doctor

- View and update the patients' medical report and prescribe medication.

#### Pharmacist

- view patient's prescription.

#### Patient

- Register to the website.
- View his medical report, medical history, prescriptions.

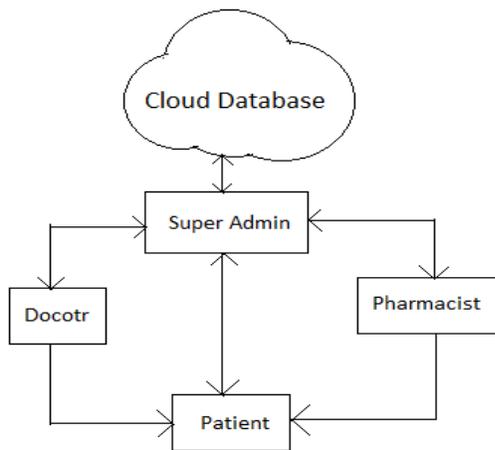


Fig.1 Flow diagram of Cloud Healthcare System

### Conclusion

Interconnected Healthcare System will help doctors have appropriate information about patient and they will be able to provide more precise treatment and medication. The hospitals will be linked to each other and hence patient can visit to any hospital without any prerequisite file, documents, or details. Interconnected Healthcare System can be used in both urban and rural area. Also, this helps in improving medical facilities and services.

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