International Journal of Information Technology and Management

Vol. VI, Issue No. I, February-2014, ISSN 2249-4510

ENHANCEMENT OF INTEGRATING INFORMATION FROM DIFFERENT MEDICAL INSTITUTIONS

AN INTERNATIONALLY INDEXED PEER REVIEWED & REFEREED JOURNAL

www.ignited.in

International Journal of Information Technology and Management
Vol. VI, Issue No. I, February-2014, ISSN 2249-4510

Enhancement of Integrating Information from Different Medical Institutions

Sravanthi Abbaraboina[1], Dinesh Gundu[2], Gopikrishna Dasary[3], Sudheer Rao Annam[4], Chandu Naik Azmera[5]

[1]Student, Department of Computer Science and Engineering, Varadha Reddy College of Engineering, Warangal, India

[2]Student, Department of Computer Science and Engineering, Varadha Reddy College of Engineering, Warangal, India

[3]Student, Department of Computer Science and Engineering, Varadha Reddy College of Engineering, Warangal, India

[4]Student, Department of Computer Science and Engineering, Varadha Reddy College of Engineering, Warangal, India

[5]Assistant Professor, Department of Computer Science and Engineering, Varadha Reddy College of Engineering, Warangal, India

Abstract – Cloud computing as an emerging computing mode can be applied to the District Medical Data Center. This is a new proposal raised in the paper. The rudiment of District Medical Data Center based on cloud computing is established. A comparison is made between the samples from the rudiment and the samples from the general systems. XML is suitable to both express the multi-element unstructured data and exchange the complex data. The various standards for DMDC are established. The advanced model of District Medical Data Center based on cloud computing is described. The idea is also showed that the District Medical Data Center is as a service on the cloud computing platform. In the future, cloud computing may be better approach to the next generation of District Medical Data Center.

----------♦----------

I. INTRODUCTION

The DMDC refer to the District Medical Data Center ,is infrastructure for the healthcare system are many problems to be solved and many difficulties to be overcome in constructing the national healthcare information system now, though great progress was made over the last 20years. The essential reason is the lack of information integration. In various medical institutions the clinical information for the patients is scattered, fragmented and isolated, it results at least that obtaining useful information is very difficult meanwhile available information is idle. A lot of information is reduplicate but inconsistent. In public health agencies, the basic information is lacking for healthy people, it results at least that no database supported our decision that should be made as soon as possible when major disaster or epidemic comes suddenly . The lack of information integration makes high cost and low efficiency.

II. RELATED WORK

To construct DMDC, the common platform must be built, because a lot of heterogeneous systems are serving now as the hospital systems in the large medical therapy units. Meanwhile the heterogeneous management information systems are running in the government sectors. Similar to the community health units are holding the different small-scale information systems. These systems run well to support the daily work. It is very difficult and very cost to integrate the heterogeneous systems because of the different servers, different databases and different software architectures. The problems of maintenance are followed for the difference of ownerships of systems. However a solution is present in the model of DMDC above, it's not standing effectively for long time. The reason is that the case is relatively closed system based mainly on the intranet rather than opened system based on the Internet. No department can afford independently not only the running expense but also technology for the DMDC. Cloud computing can be the ability to rent servers and run the huge applications on the most powerful systems available anywhere in Internet. Even to rent a virtual server,

load software on it, turn it on and off at will, or clone it many times to meet a sudden workload demand. The cloud computing can be supported by a cloud provider that sets up a platform that includes the different frameworks, the different OS, the different database and the different programming languages. To provide flexibility to the users, the interfaces have been developed that are accessible through a browser. The GUI'S at the top level have been categorized as

- Administrative user interface
- The operational or generic user interface

The 'administrative user interface' concentrates on the consistent information that is practically, part of the organizational activities and which needs proper authentication for the data collection. These interfaces help the administrators with all the transactional states like Data insertion, Data deletion and Date updation along with the extensive data search capabilities.The 'operational or generic user interface' helps the end users of the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information in a customized manner as per the included flexibilities. In the existing system there is lack of information integration. In various medical institutions the clinical information for the patients is scattered, fragmented and isolated; it results difficult to obtain the meaningful information. This paper is aimed at integrating information on population in some region, including various clinical diagnosis information and treatment information on patients in the different medical institutions, also covering the various basic information on health.

III. EXPERIMENTAL RESULTS

The proposed paper can be categorized into 3 parts

1.Admin

2.User

3.Government

3.1) Admin:

This is to maintain the Data of each Hospital, Doctor and Patients. Admin will add Hospital Details like where exactly the Hospital is and address details of the hospital etc. Then he will enter doctor details like Doctor Name, Doctor Designation followed by in which area he is specialized in. These details will be shown to Patient who are searching for specialist doctor for particular disease. Doctor won't register directly in our application Admin will make him register and Admin will pass Authenticated details like user id and password to Doctor with which Doctor will login and make interactions with patients.

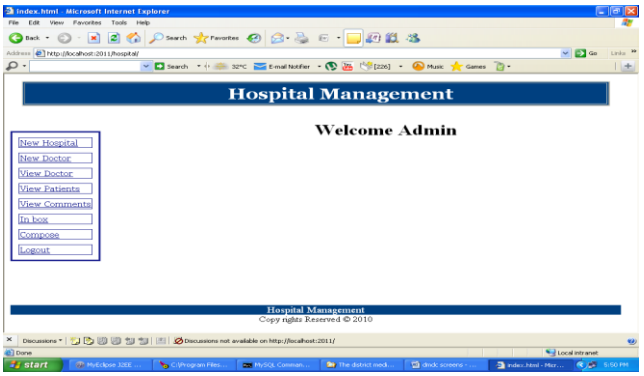

Figure 1: Admin Screen

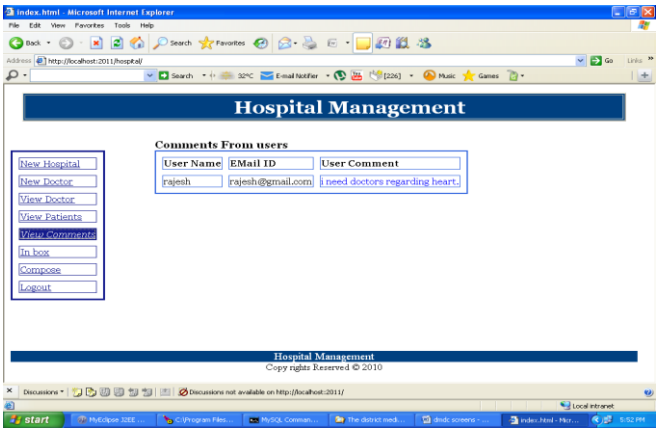

Figure 2: Comments from Users Screen

3.2) User:

This is to search for the needed Data. Here User is referred to the Normal Patient who is making use of our medical application. The Main purpose of our application is to provide needed data like which doctor is specialized for the disease patient suffering from. And patients are of two types, Namely Registered User and Unregistered User.

3.2.1) Registered User: Registered user is one kind of patient in our application. He will make use of our medical application in order to make interactions with doctor. First Patient will make request to doctor in order to make prescription and if doctor is interested he can make prescriptions and can make appointment with the interested patient.

3.2.2) Unregistered User: This user can gain the information like which doctor is best for giving treatment for particular disease. Unregistered User won't make use of all services provided by our application. Unregistered user will only searches for the information. Like information needed for patient like which doctor is best in giving treatment for particular disease. And unregistered user can't access all services provided by this application. If he wants he can register through our application and can access the services provided by the application.

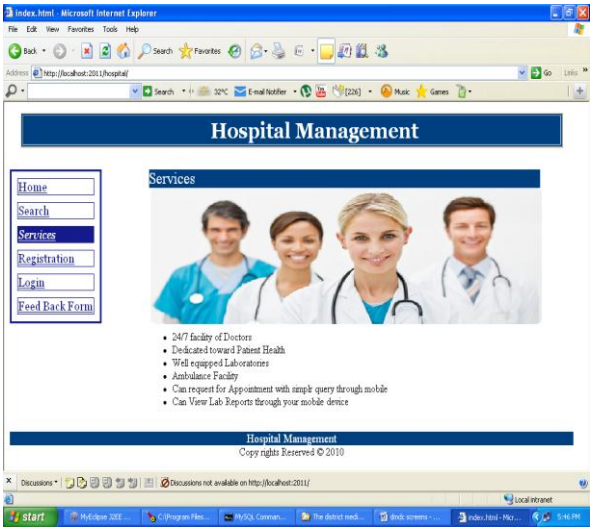

Figure 3: Services Screen

3.3) Government:

This module gives survey of patients suffering from different diseases. Here we will get the details like how many patients are suffering from different diseases. This will be helpful for the Government employees who will gather information for making surveys on people who are suffering from different diseases. In our application we will give authenticated user id and password for Government Employees with which they can login and gain the services like finding number of people suffering from different diseases.

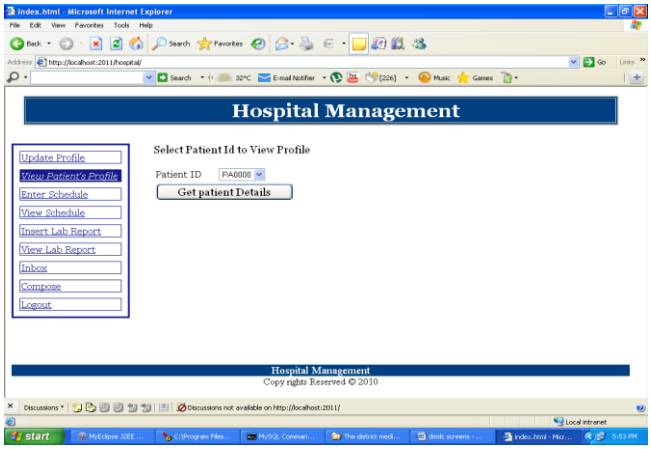

Figure 4: Patients Profile Screen

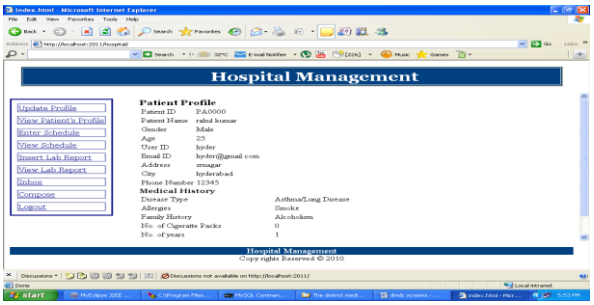

Figure 6: Patients Details Screen

IV. CONCLUSION

The DMDC is related to the government the objective insuring the services of both the medical and the healthcare of each citizen. So it's also one of the major projects of "11th Five-Year Plan" worked out by the Ministry of Science and Technology. The model of inchoate DMDC should be built the "two layers" and the "duplex channels" through the "two lines". It's regarded as a rudiment of District Medical Data Center based on cloud computing. As a case, "The Xiamen

Citizen Health Information System" shows the effect even though it's based on not absolute DMDC. The cloud computing is an emerging computing mode. It promises to increase the velocity with which applications are deployed, increase innovation, and lower costs, all while increasing business agility. The nature of cloud computing is useful for constructing the data center. To the new generation of DMDC, cloud computing is better approach in the future.