E_Health Cloud Solution

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Abstract : For a long time, the sensitivity and criticality of data storage, processing, and transmission have difficult to the wide utilization of IT and networks in the health care systems. Recently, the high availability, reachability, reliability, efficiency, usability and automation provided by the different cloud computing models covered the way to integrate the e-health systems with these cloud services to improve their efficiencies. However, security and privacy still constitute the main concern in the current models of cloud computing for cloud-based e-health care systems. The process and integration of different services with different capabilities and ownerships means high risks on security and privacy of the data, which are not negotiable in e-health care systems. There have been many proposals to solve some of these concerns specifically or among other protocols. In this paper we define different scenarios for the integration of the e-health systems with the cloud computing systems. We also define the security and privacy requirements for these scenarios as well as the guidelines of the proposed solutions for the presented security and privacy problems.

I. INTRODUCTION

The most developed countries globally tempt to position the e-Health systems as central cloud service solution, which is providing many services to citizens, health care providers, the consultation of medical center guidelines, etc. e-Health systems are in charge of registering complaints and suggestions to the service as well as they take responsibility for recommendations for the physicians by evidence based medicine principals. Some of the most recent topics or immediate actions are the electronic prescribing and the long term vision is ensuring the establishing, storing and utilization of national electronic health records (EHR), combining the medical records generated by the healthcare providers, hospitals and all health related institutions in the country. ICT within the healthcare forms an important and unenviable tool improving quality and patient safety, also changing the dynamic and effectively of management and allowing modern healthcare systems adoption to suit the needs of patients and healthcare professionals within the care process. In order to obtain the best effectiveness, it is necessary to provide access to the lifetime patient's medical reports, by ensuring the sensitive data privacy, data security and provide the physicians the best technological support in form of decision-making advices. This article provides introduction and overview of e-Health, developed and implemented within the health.

II. Need of work

E-health simply means that the applying of the most recent info and communication technologies altogether health-related fields like collection, storing, restoring, analyzing and managing the data, unifying the electronic health records, spreading and sharing medical info, surgeries and health care remotely, additionally to good e-healthcare cards. The aim is to attain stronger and simpler communication with patients and upgrade attention services and also the entire attention sectors. It's all reading digitizing health care systems and records. In today's world there's no extra space for work with world countries attempting to maneuver fully to the digital systems wherever they will share info and patients' information online, additional simply and additional effectively, among physicians and medical establishments, further as recording and change each patient's health history, reports, analyses and rays. E-health means that everything are going to be accomplishable and obtainable on-line for patients and doctors and therefore the full point to tons and oceans of work, like records and files, that swallow an outsized house of medical centers. This implies larger returns to the country's attention sector that comes beneath the pressure of the must-to-do tasks: give attention services, continue doing that everyone the time and check out to create them higher and cheap.

E-health systems are the word for that to happen. E-health has become a headline-grabbing topic in written and on-line media and relevant conference and international activities drive such a lot attention worldwide, given the actual fact that these conferences and conferences give an excellent chance to introduce governments and therefore the bodies involved to the latest e-health trends and technologies and an honest platform to network and share info, experience and stories of success on however ICT makes such dreams a reality. And therefore the economic dimension is certainly a giant purpose altogether such activities. In Qatar, four out of twelve hospitals have already absolutely integrated the digital system and square measure currently the quality for all new hospitals countrywide; one thing we should always praise really though there's still an extended thanks to go as a result of we tend to must not forget the challenges on the means, as well as the budgets place for e-health comes, the cadres and professionals WHO are able to apply and use e-health systems and therefore the ICT infrastructure that has got to be there in any respect health care centers so as to unify work and create the Internet the sole one hall for all.

III. Literature Survey

Throughout recent years, several technology and health care terms were introduced, that often confuse the readers. There are new terms like health telematics and telemedicine, as well as e-Health, EHR, online health, electronic health, network health

and many others. We have collected and outlined some most frequently used definition:1)E-Health: is the synonym, related to the online health, electronic health and network health. It might be defined as "the ICT infrastructure and applications of healthcare which use the technologies of digital communications networks of multimedia data, primarily Internet. In simplified form, these terms characterize the interaction and expansion of Internet within the variety fields and sectors of Healthcare", but is definitely connected to the digital health related information. Currently, there is a tendency, especially in the European Union (EU), for using this term broadly and include all the health telematics applications under its usage.2)Health telematics: This is defined as the application of telematics technologies in the field of health. It is a term broadly accepted, including within administrative applications, information and in support to clinical practice.

Telemedicine is also seen as a subset of health telematics applications, which can be also included under this term.3) Telemedicine: In the strict sense, it is understood as a provision of medical services remotely using electronic communications. There are telemedicine applications in e-Health (for example Tele-consultation between groups of professionals). Nevertheless, some of the current telemedicine applications do not use the Internet, but focuses of IOT global network and by time being the telemedicine will more utilize IOT within the eHealth and it is an urgent necessity to integrate the results and data of Telemedicine, gathered and communicated by telemedicine devices with the EHR in order to serve captured data to the physicians to understand better the long term measured processes of patient organs and body. The World Health Organization (WHO) [WOR 15], in 1997, considers that e-Health provides health care services, where distance is a critical factor, by professionals that appeal to ICT, with the aim of exchange data for making diagnoses in order to improve the health of people and communities in which they live. Another definition is also used as follows: The use, in the health sector, of digital information transmitted, stored or collected electronically to support the health care both locally and remotely.

IV. Figure

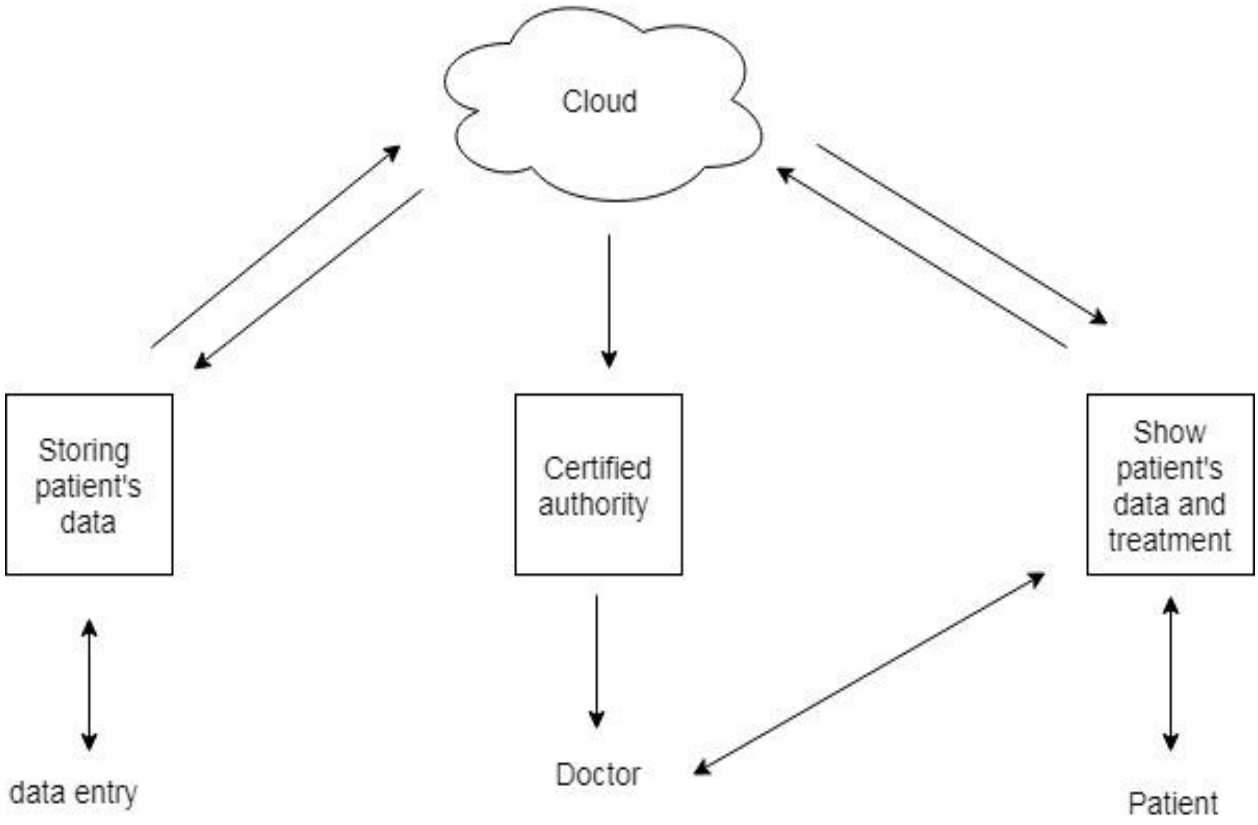

Fig : System Architecture

V. METHODOLOGY

Algorithm for fingerprint matching and Reorganization

1. start
2. Connect fingerprint device to computer
3. Enroll fingerprint by clicking button in the registration form
4. In Henery system categories are defined right loop, left loop, arch, tented arch used for general direction of lines of finger print.
5. In this Henery's method uses general shapes of ridges fingerprint is divided into two small sector.
6. Use the above categories to match the fingerprint pattern.
7. Login to the system if fingerprint matches in the database.
8. Display the record of patients.
9. Stop.

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