# Cloud Computing on Accessing Security of Medical Information on Mobile Phone

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**Abstract:- Mobile Cloud Computing is a network of technology that is up-to-date and helps to store data in a reliable way.in a time when the whole world is obsessed with cloud technology and that is why we want to focus on it, whether in business, medicine and  education all cloud technology is needed. In modern times technology is to store our data in cloud technology .in the developed world they are now interested in storing their informations  in cloud technology which is why we also thought of using it such as a laptop. A large number of informations are collected, stored, processed and returned to the Electronic Medical Record System (EMR).all patients record need to be stored in a reliable manner so that whenever the patient needs them he or she can easily access them, even if he or she is a doctor when he or she needs access to all the informations that the patient can easily access for example like x-ray images where needed, disease reports and more. The availability of patients as long as they visit the hospital thus enhances the quality of care. cloud technology.it is a reliable method that can be used in medicine where the patient's information is stored in a safe place and reduces the storage space on the computer and the patient's information is kept safe and secure.**

*Keywords - information protection; cloud computing; integrity checks; review cipher documents, electronic medical system*

## I.   INTRODUCTION

Cloud technology is a new way to reduce and modify existing technologies such as storing information in a database in the event of an accident and you may be missing out on patient or computer information and steal it and find a problem. , the other thing is that it will store the patient's information. In fact, everything is normal in any technology used in medicine, especially in the form of data storage. All in all, to make it more accessible to most people in the name of statistics. Cloud is not the last word on the internet, although the internet is the foundation needed for the cloud, the cloud is something more than the internet.

The cloud uses a simple way for anyone where it doesn't need the power on your computer or just buy other expensive hardware, the cloud stores your information in the cloud all you need is to have internet, you feel the cloud technology is limited.

The cloud provides all the information that is provided as an online service and the system and software tools in the database that provide the best and most suitable customer service.

## II.   BACKGROUND

Clouds play an important role in changing the way we work together, especially in medicine. Compared to the traditional way of processing information, the cloud provides many benefits, such as the availability of dedicated tools for assembling, integrating, determining and rediscovering the available resources on demand. . performance of service providers .Calculating the cloud is considered a positive change in the technology that has come together to transform the efficiency of ICT infrastructure. therefore, there is nothing new in any technology used in mathematics where the same technology has been used since time immemorial.

The main goal is to deliver more and better service to many in the name of statistics. Clouds are the best and most efficient way to access the Internet. The cloud is where you go to use technology when you need it, whenever you need it. it does not require storage on your desktop, and when you use the internet you pay for the clouds but when you do not use it you do not pay (Ahmed, 2013). cloud-based information security has reached the top level in aggregation as a strong and likely solution for many solutions. This idea is shared by many different groups, such as university researchers, business decision-makers and government agencies. Many of these similar considerations point to serious security concerns and legal challenges to cloud computing, including the availability of services, the confidentiality of information, the provision of products and the collaboration of celebrities.

## III.   PROBLEM OF STATEMENT

1) The main question for the researchis to see and show how the  patient's  information  wouldbesecureenoughwhenhe or she want edit and the doctor who need edit would getiteasily
2) To show how to store data in the cloud where it does not require the purchase of a computer or laptop to store the data because it will be stored in the cloud
3) Understanding that cloud computing is better than ever, where it requires only internet.

# IV. METHODS

Our research was focused on finding a solution to the problem of security of medical informationsystems using mobile phone. Formulating a research topic is very significant in any study. To accessing the security and the advantages and disadvantages of cloud computing using mobile phones, which are cloud-based, and its security impact, the background of the topic was first assessed.For the purpose of this research study, the researchers collected quantitative data as well as qualitative data. Researchers use online interviews and questionnaire used to reach to the objective of this research study. The population chosen to participate in this research were nurses from health institutions, doctors from referrals hospitals in ICT field and other ICT employees who are working in health sector. Due to the goals of this research study, the judgmental sampling used and 87 people were selected. The 68 questionnaires received which indicates the good response rate of 78,160. The non-probability sampling technique used because researchers only chose the responders based on the skills and knowledge they have to the cloud and e-health and it is for this purpose that the purposive or judgmental sampling technique used (hamed 2016, Uma S, 2003). The judgmental sampling is low-cost and convenient and it is good for time saving and it does not permit generalization and subjective (Uma S, 2003)

➢ *Data Analysis and Models*

All patients were prescripted .usingElectronic Medical Record system (EMR).to identify performance and Records into database .
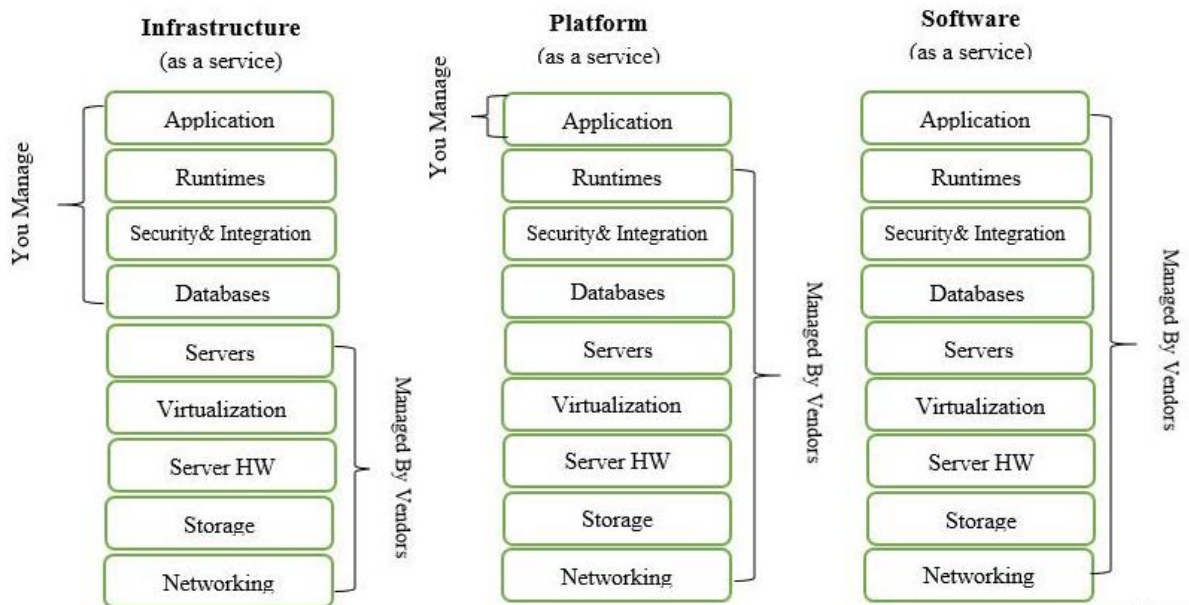


Fig 1:- Illustration of cloud computing services models

| id_prescription | id_med | namep | lname | dateofexam | exam | diagnostic | treatment | observation |
|---|---|---|---|---|---|---|---|---|
| 1 | 0 | kevin | Ishimwe | 2013-04-14 23:35:26 | tdr | fievre | paracetamol | 1 piece 3 times a day |
| 2 | 0 | chance niyodushima | | 2013-04-01 14:10:16 | tdr | malaria | coartem | sadnbfjksnfbjskadl |
| 27 | 0 | Protogene NGANGO | | 2013-04-11 13:11:26 | GE | fievre | amodiaquine | 5jrs |
| 29 | 0 | Devotha | uwamahoro | 2013-04-14 23:42:18 | GE | fievre | coartem | 2/2/3jrs |
| 36 | 0 | Kevin | Ishimwe | 2013-04-15 00:37:14 | urine | fievre | ampiciline | 3/2/5 |
| 37 | 0 | Fidele | ntirenganya | 2013-05-01 13:07:30 | tdr | fievre | amodiaquine | 3/2/5 |
| 38 | 0 | Fidele | ntirenganya | 2013-05-01 13:12:00 | tdr | fievre | amodiaquine | 3/2/5 |
| 39 | 0 | id_med | ishimwe | 2013-05-09 15:29:34 | Amylase | severe abdominal pain, fever, loss of appetite, or nausea. | adrucil,efudex,fluoroplex | 5 days of live |

Table 1:- Cloud_System ,Patient_Prescription data Record

| id_patient | lname | fname | faname | maname | gender | birthday | tel | country | province | district | sector | cell |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | Protogène | NGANGO | Nshimiyimana | Nurere | male | 1986-08-25 | 725670716 | rwanda | South | huye | huye | nyakagezi |
| 11 | Devotha | Uwamahoro | Kana | mama | female | 1991-05-28 | 722631427 | rwanda | kigali | gasabo | kimironko | bibare |
| 17 | Kevin | Ishimwe | Bagiramenyojoseph | Mukangwije M. Therese | male | 1988-09-09 | 788719655 | Rwanda | South | Huye | Huye | Nyakagezi |
| 30 | chance | niyodushima | lifance | nyirandayisaba | female | 1995-03-14 | 725901887 | rwanda | sud | ruhango | kabagali | nyamagana |
| 31 | kaka | ishimwe | joseph | liliane | male | 1988-09-09 | 2147483647 | Rwanda | sud | nyanza | kibilizi | Nyakagezi |
| 32 | NTIRENGANYA | Leon Fidele | Bagiramenyo | Mukangwije | male | 1978-02-01 | 722630237 | rwanda | Sud | Huye | Huye | Nyakagezi |

Table 2:- Cloud_System ,Patients data Record

## V. RESEARCH OBJECTIVES

The main goal of our study is to demonstrate how patient information can be safely protected using clouds. the other is that we encourage all companies and the world as a whole to participate in cloud technology.all of which are in the following three purposes:

➤ Identify security issues and identify appropriate security technologies for use in the Cloud computing world.
➤ Better understand and identify security issues that may arise in the future of Technology computing.
➤ To identify and explain some of the ideas that will confront us in the future in accounting in curerent Technology.

## VI. RESULT OF THE STUDY

In this research we have based on security concerns in technology because there are now hackers in conventional technology where they can get all the information when not stored in cloud technology ALGORITHM INC. we briefly explain future security issues based on expert opinions. Results include:Unsafe Software Applications, Bad Entities, Legal Decisions, Virtual Machine Security, Reliable Trading, Multiple Rental Risks, Mobile Phone Information, Misuse and Misuse of Cloud Clouds, Shared Technology Accidents, the road.
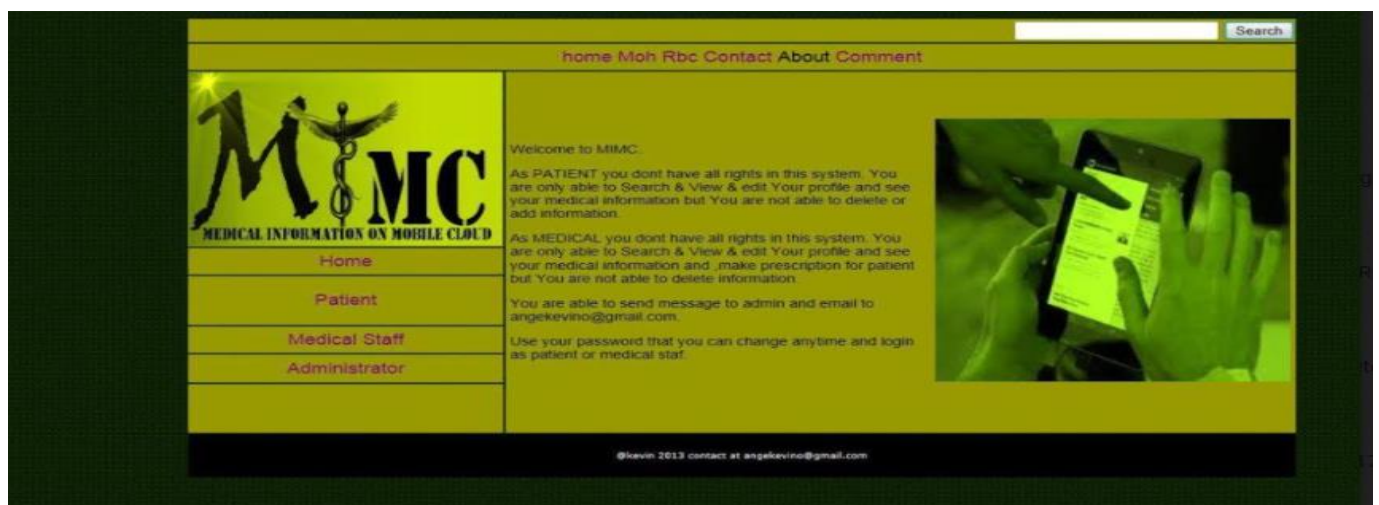


Fig 2:- Patients form details records



Fig 3:-.Medical information Mobile cloud(MIMC) interfaces data Records

## VII.    CONCLUSION

From what we have said above, we need to protect the patient's information in a reliable way using the cloud and put in place a reliable system where e-health should have the immunity to protect the patient's information properly, as long as it is available. moreover we have to mobilize the whole world to start using reliable cloud storage

e-Health, it is necessary to add to the results provided in any way to address e-Health. governments and decision-makers in all countries of the world must establish a comprehensive e-Health system to encourage and approve it. Governments should also develop research institutes where security experts will come together to exchange views on how to prepare for e-health solutions that are safe enough in any way. Finally, there must be a detailed privacy policy for e-Health services and activities so that patients must believe that as long as they use the cloud ask for their information as securely as possible.

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