CHAPTER I INTRODUCTION

This chapter includes the background of this research, problem statements, questions and objectives of research. There is also the significant of this research followed by the outline of research.

1.1   Introduction

Nowadays, the world is witnessing a series of changes, developments and transformations in all spheres of life that can affect the operation of both public and private sectors and many other different sectors of society as well. The most prominent change is the development of data communications and information technologies including global network (Internet), which contributed to a marked change in the public and private sector operations.

The emergence of modern information and communication technologies has led to major developments in public life, both in terms of individuals' expectations and their desire to obtain more convenient services, or at the level of institutions and bodies that provide them. Information technology has necessitated the development of government agencies in line with Global developments in the use of technical systems in the development of service management and the state-owned technology is synonymous with the rise or backwardness of the state.

The introduction of information technology in all government works has become the goal of many countries that seek to progress and progress. The use of information technology in government agencies has been linked to the emergence

of a new concept called the e-government. This concept will re-develop the governmental apparatus and adopt a new work method within the service systems The state guarantees individuals the speed and efficiency in the performance of their work and government procedures, and the idea of changing a number of concepts related to government performance and the development of transparency and speed in the forefront of government goals while making the citizen (the client) This concept is a reflection of the principles of justice in dealing with all groups of society through the provision of equal services in record time, effort, cost and time limited to achieve the speed of achievement and satisfaction of the citizen.

Recently, emerged the idea of "cloud" or "cloud services", which means the total of services that are made through hardware and software connected to servers carry data in virtual cloud ensures contact with on a permanent basis without interruption, by different devices (PC, tablet, smartphones, etc.) after put a special code to open the lock and thus the network is accessible from anywhere and at any time.

This research aims to find out the possibility of applying cloud computing in e-government, and will focus on two main variables cloud computing and e-government as follows:

A. E-Government

E-government is defined as the ability of the different sectors of government to provide traditional government services to citizens by electronic means and at high speed, capacity, lower cost and effort and through a single site on the internet. Although the term e-government contains a character (e) the essence of this term is

the administration or public Legislators, and the goal is not just automation and technical, but a change is real and the development in the style of work of the administration and delivery of government public services to citizens and businesses.

The term e-government is defined by some as the use of various technological means of communication in the execution of administrative transactions, the provision of attachment services and communication with citizens with greater democracy (Hashmi & Kumar, 2014).

While there is another trend known as e-government in the broad sense, as it is not only limited to providing services to citizens over the Internet, but includes the permanent attempt to obtain the best government service in internal and external relations through non-traditional electronic means at any place and time, Without discrimination or violation of the principle of equal opportunity. (Ibrahim, 2014).

Through all of this we can provide a definition of e-government as the use of technological means of communication in order to provide the best service to citizens as soon as possible.

Thus, the e-government initiative means adopting a change or amendment in the basic relations that binds the government on the one hand and the citizens on the other. This trend is what transforms Morocco's behavior by adopting the information system in the Moroccan courts. The Moroccan government has made registration in the electoral lists Through the network of information, and furthermore, many colleges and institutes also provide for the mandatory registration online first. (Sajjad Hashemi, 2013).

B. Cloud Computing

In this digital era, the interest of countries and institutions in the application of electronic management has become clear. It has started to race for time to provide easy electronic services in the public and private sectors, and the latest technologies that can be utilized in the application of electronic management so-called cloud computing.

The cloud was originally used to refer to the Internet in network schemes, defined as a primary sketch of a cloud used to represent the transfer of data from data centers to its final position on the other side of the cloud. The idea of cloud programming came when John McCarthy, Said, "Computing may be organized to become a public service one day, and the idea was from the landline network.

The cloud has emerged as a workable and optimized solution with the availability of Internet infrastructure in various parts of the world, and "connectivity" has not become a barrier to cloud contact, especially after the huge boom in smartphone issuance that always carries Internet connectivity features, dealing with various information and files on the network, especially multimedia, many people have e-mail, this mail may be in Google, Yahoo, Yahoo or others.

The variety and variety of definitions of the concept of cloud computing has come because of the diversity and variety of its applications. Perhaps the most comprehensive of these definitions is contained in the Wikipedia, which I have defined as:

The term refers to the on-demand computer resources and systems available on the network that can provide a number of integrated computer services without local resources to facilitate user access. These resources include data storage, backup and self-synchronization, including software processing, task scheduling, e-mail and remote printing , And when connected to the network can control these resources through a simple software interface simplifies and ignores many details and internal processes (Tamara Almarabeh, 2016).

Cloud computing has been defined as "a technology that relies on the transfer of processing and computer storage space to the so-called cloud, a data center accessed by the network, thus transforming information technology programs from products to services, which contributes to the removal of maintenance problems and systems development Of the companies used, and therefore the focus of the efforts of beneficiaries on the use of these services only (Tamara Almarabeh, 2016).

Cloud computing is a new technology that can dramatically improve government functions, services to citizens and their institutions, and cooperation with other governments. This can create a revolution in e-government system, in terms of cost savings, the use of actual resources and profesional2-4. Moreover, the cloud-based applications in the private sector's special effectiveness to meet the requirements and needs of the unexpected resources (Rastogi, 2010).

The definition that seems to have gathered all these elements is the definition of the US National Institute of Standards and Technology, which is a model for enabling sustainable and appropriate access to the network on demand

and participation. "Cloud computing provides a set of computing resources (networks, servers, storage units, applications and services) Which can be deployed and provided quickly with minimal effort by management or interaction with the service provider (Ibrahim, 2014).

1.2   Problem of statement

Increasing change of technologies in many different fields in our life made using of traditional approaches of services harder and more complicated. Many governments around the world still use the traditional methods or even less than what must be for introducing services for its citizens. The society is moving toward the technology especially mobile connections. The ability of an e-government service to be accessible to citizens irrespective of location throughout the country brings the next and potentially the biggest benefit of an e-government service.

According to these all advantages that we can gain of e-government, saving time and money is the main issue of using e-government. In addition to, citizens can have many benefits such as available information for all, reachable any time and quick services.

1.3   Questions of Research

The following questions were considered to explain the problem of study and illustrate the requirement of each of e-government and cloud computing and the relation between both or role of cloud computing in e-government as following:

1. How are the reality of e-government and its administrative development in Yemen?

2. What is the required infrastructure for the adoption of e-government?

3. What are the required applications to apply cloud computing in e-government?

4. What are the advantages and challenges of e-government and cloud computing in Yemen?

5. How is design e-government using cloud computing in Yemen?

1.4   Objectives of Research

The following objectives were proposed:

1. To describe and explain the reality of e-government and its development in Yemen.

2. To explain required infrastructure for the adoption of e-government by using cloud computing.

3. To identify what are the required applications to apply cloud computing in e-government.

4. To identify advantages and challenges of e-government and cloud computing and what is needed to cope the risks of adaption e-government.

5. To make design for e-government using cloud computing.

1.5   Significance of Research

The importance of this study depends on the fact that e-government has become something essential to enable governments to facilitate the provision of services to citizens, businesses and communicate with the rest of the world. The electronic government is very important in developing countries economy and keep pace with progress in telecommunications and information technology. Another essential evident of this study is that cloud computing one of the most modern technologies which are expected to occur a major revolution in the improvement of various facilities related to its role in the development of programs and applications of distinct storage spaces, very large monitor, save data securely and at lowest cost.

This creates an opportunity for a change from investment costs to operating costs by reducing the cost of buying expensive systems and hiring professional staff to manage and maintain.

1.6   Outlines of Research

Chapter I: This chapter includes the background of this research, problem statements, questions and objectives of research. There is also the significance of this research followed by the outline of research.

Chapter II: There are many theoretical studies about e- government and cloud computing will be reviewed in this chapter of this research in addition to these previous studies and framework to explains the elements that will be discussed during this research as well.

Chapter III: this chapter included the research methodology. Starting with research perspectives following by the strategies of doing this research. There is also the explanation about data source and data collection that used in this research. The last section is about data analysis and both two methods for analyzing data in this research.

Chapter IV: This chapter starts with background of using internet and reality of e-government and cloud computing in Yemen. There is two analysis descriptive statistics and interviews in addition to the description of quantitative sample. This chapter includes the answers of research's questions. There is a design for implementing e-government in Yemen by using cloud computing technology.

Chapter V: this chapter in includes the conclusion and recommendations of this research followed by limitations and further studies in the same field of research.