Chapter 10
Cloud Governance at the Local Communities

Vasileios Yfantis
Ionian University, Greece

ABSTRACT

This chapter conceptualizes the plan of an autonomous community to cover the information technology needs by adopting cloud computing on a community level. Community cloud computing is a solution with many advantages that can help the community to cover sufficiently their technology needs or even generate income by renting virtual resources. This is a theoretical approach that can be used as a conceptual tool for small municipalities or other communities that intend to extend their technological and political autonomy.

INTRODUCTION

The public organization is an organization that operates as both physical and virtual entity because the citizens 'service is implemented on both ways. The physical infrastructure includes all the physical offices and processes that the government uses. Consequently, government as a virtual organization should adopt the most characteristics of a virtual organization in terms of infrastructure. According to Lee and other scholars (Lee, 2014) a virtual organization is «a security and collaboration context not exclusively associated with anyone physical organization». In other words a virtual organization may be considered as a different entity than the physical organization. If a virtual public organization is not associated with the physical organization, might confuse the citizens. On the other hand, the virtual form of the public organization can offer services than the physical one is not capable of offering. For instance, a virtual organization can offer the services of the virtual authentication and digital signature on 24/7 level. It is obvious that a virtual public organization transforms the government into a set of electronic services.

Government as a Service is a terminology that describes a governance model where cloud computing (Ostermann, 2002) is an important element in the operation of the public sector. Modern society promotes the service oriented concepts as the fundamental principles for the future of the global economy. One very promising concept being implemented is the Software as a Service (SaaS). The platform that is being used for its implementation is cloud computing.

GOVERNANCE AS A CLOUD COMPUTING SERVICE

In this section we are exploring the concept of community in order to improve Government as a Service.

Community cloud computing and cloud computing have the same philosophy; they distribute software, hardware and application resources among users. According to Manion (2004): «People in a country with a high degree of political freedom can participate in the political process more openly and actively, which in turn helps alleviate corruption by empowering people to monitor the exercise of the official power». At community level, it means that if people participate in the electronic governance of the community, then they can help in the minimization of the corruption. This is an important reason in order to explore the actual participation of the autonomous community in the electronic governance. There are two types of community cloud computing that depend on the management of the server side components (Badger, 2011):

1. **On-Site Community Cloud:** The management and the maintenance of the server are being implemented by the members of the community.
2. **Outsourced Community Cloud:** The management and the maintenance of the server outsource to a private company.

These two types of community cloud computing are going to influence governance in various levels regarding its distribution and application. The most interesting example is the case of self governed communities such as small municipalities or villages. Users could be divided into those who only act as citizens and those who manage the server's tasks, but remain citizens as well (Figure 1). It is important that everyone is obliged to obey the rules of the community.

The IT literal members will take over the technical tasks with a number of members assisting to routine technical operations; everyone is able to enjoy the citizen's services. The bond is strong as long as each individual member focuses on the governance mission of the community and acts responsibly. The responsible behavior of the community will trigger the responsible application of the citizen's rights. So, the more respect the members show to the community, the more respect will show to the public sector. Realizing this fact, governments will try to form a new generation of responsible citizens through training and educational school programs.

The adaptation of the outsourced community cloud model by the citizens offers them greater independence (Figure 2). The server's maintenance will be outsourced to an external company and the community members will focus on the responsible action of the citizen rights and their cooperation with

Figure 1. On-site community cloud computing
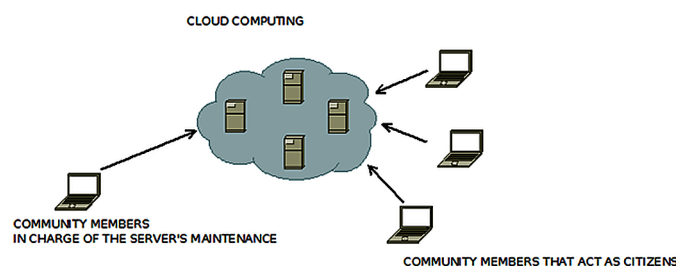
7 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/cloud-governance-at-the-local-communities/214610

Related Content

Preparing Educators for Development of Innovative Teaching Using Mobile Technology
Deborah Watlington, Renee Murley, Annette Corneliusand Torre Kelley (2015). *Promoting Active Learning through the Integration of Mobile and Ubiquitous Technologies (pp. 74-97).*
www.irma-international.org/chapter/preparing-educators-for-development-of-innovative-teaching-using-mobile-technology/115469

A Fast Image Encoding Algorithm Based on the Pyramid Structure of Codewords
Ahmed A. Radwan, Ahmed Swilemand Mamdouh M. Gomaa (2009). *International Journal of Mobile Computing and Multimedia Communications (pp. 1-13).*
www.irma-international.org/article/fast-image-encoding-algorithm-based/37452

Performance Evaluation of Multimedia Traffic Transmission Under Binomial and Poissonian Primary Traffics in Cognitive Radio Networks
Abdelaali Chaouband Elhassane Ibn-Elhaj (2012). *International Journal of Mobile Computing and Multimedia Communications (pp. 87-105).*
www.irma-international.org/article/performance-evaluation-multimedia-traffic-transmission/69535

Landscapes, Long Tails and Digital Materialities: Implications for Mobile HCI Research
Mikael Wiberg (2012). *International Journal of Mobile Human Computer Interaction (pp. 45-62).*
www.irma-international.org/article/landscapes-long-tails-digital-materialities/62056

Mobile Application Benchmarking Based on the Resource Usage Monitoring
Reza Rawassizadeh (2009). *International Journal of Mobile Computing and Multimedia Communications (pp. 64-75).*
www.irma-international.org/article/mobile-application-benchmarking-based-resource/37456