

1. Abstract

Nowadays, in order to function as an effective IT infrastructure, a business must aspire towards reducing costs, accelerating processes and simplifying management. Turning into a flexible IT environment can help organizations achieve these goals. In today's economic environment as Enterprises try to balance out and optimize their IT budgets, Cloud Computing can be an effective strategy to reduce the IT operations and management costs and free up critical resources and budget for discretionary innovative project.

To some it might seem as if Cloud computing is a technology that already existed and only got a new name. To others it might seem as if Cloud computing is a brand new technology and that it must be treated the same way as to evaluation methods in comparison to standard IT solutions ("shelf products"). In order to obtain the correct methods of evaluation, first we need to know whether or not we are allowed to use the same evaluation methods that we use for evaluating those standard IT solutions. The empirical findings obtained in this research attempt to answer 2 questions:

- 1) Can we evaluate Cloud Computing solutions by using the same concepts and theories that are used for evaluation processes of traditional IT solutions?
- 2) What are the different aspects that need to be added or removed when considering a Cloud Computing solution in comparison to traditional IT solutions?

Regarding the first question, we can conclude from the empirical findings obtained in this research that we cannot evaluate Cloud computing solutions by using the same concepts, manners and theories that are used for evaluation processes of traditional IT solutions.

Regarding the second question, we can conclude that there are several main concepts that describe this difference. These concepts will be elaborated on later in this paper.

The research presented in this paper is another step in an ongoing research field aimed at improving existing Cloud Computing evaluation processes, methods and tools in the purpose of enhancing its contribution.

2. Introduction

With the growing availability and popularity of clouds and the services they provide (Storage, Software, Platforms and Infrastructures) new opportunities and challenges arise as businesses now can use flexible IT usage in a cost efficient and pay-per-use way. As for businesses evaluating which technology solution to use, it would be necessary to decide whether or not the evaluation of cloud Computing would actually differ from traditional ways of evaluating standard IT solutions.

The objective of the research presented in this paper is to answer 2 main questions:

- 1) Can we evaluate Cloud Computing solutions by using the same concepts and theories that are used for evaluation processes of traditional IT solutions?
- 2) What are the different aspects that need to be added or removed when considering a Cloud Computing solution in comparison to traditional IT solutions?

As a first step in the investigation of these 2 questions, a literature review was done (see section 3), and its purpose was to present in general, what is Cloud Computing, what are the services it offers, and its different types, as an introduction to this topic.

Reviewing existing work and literature in the field was followed then by a process of constructing interview questions (see appendix 8.1). By constructing these questions I attempted to receive some initial answers from interviewees that would direct me further on in my research and would help refine these questions and later on translate into a survey that would be distributed to a larger group of participants (see appendixes 8.2 and 8.3). Interviews were conducted on 6 participants from several IT firms, where all had experienced with Cloud Computing technologies, either in previous workplaces or in their current workplace. After analyzing the interviewees' replies and comments, an online survey was constructed and sent to 23 participants from several IT firms that used or use Cloud Computing solutions in their everyday tasks, or alternatively provide Cloud Computing solutions to their customers.