

# Chapter 96

## Strategies for Evaluating Cloud System Providers During the Transformation of Businesses

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### ABSTRACT

*This chapter takes a comprehensive look at the strategies and mechanisms developed for evaluating cloud services during business transformation. During business transformation, enterprises need to make decisions that would have long lasting impacts on the performance and profitability of the businesses. One of the important decisions business leaders are required to make is whether to own and manage their own IT infrastructure or outsource them from a public cloud provider. Due to the attractiveness of cloud computing, there are many cloud providers in the market creating a confusion in the minds of the customers who to select. Hence it is necessary to use proper strategies and mechanisms to evaluate the performance and the suitability of the service providers in meeting the customer requirements. This chapter takes an in depth look at some of the strategies, frameworks, mechanisms and tools proposed by researchers for evaluating cloud services in the literature with reference to their applicability, suitability, advantages and disadvantages.*

### INTRODUCTION

The business today face tremendous challenges for their survival and development due to various factors and changes happening in the environment (Albrecht & Sack, 2000). No business is immune to these challenges irrespective of their size, nature or location of operation. The environment in which a business operates can be divided into internal and external environments (Adeoye & Elegunde, 2012). The internal environment of an organization is made up of elements that can be found within it including its structure, culture, resources such as physical, technological and human, values, etc. The external environment consists of both operational environment as well as general environment (Giovanni, 2012). The operational environment consists of many elements includes customers, suppliers, distributors, competitors, labor

DOI: 10.4018/978-1-5225-7501-6.ch096

markets, financial institutions, and trade unions which the organization interacts with for its day to day operations. On the other hand the general environment exerts an indirect impact on the operations of the organization. The general environment consists of macro-environmental factors namely socio-cultural, legal, economical, political and technological factors (Hiriyappa, 2008). The influence of the general environment on organizations may emanate not only from the local or national sources, but also from international sources that are operating far away from the organization being affected.

In order for businesses to survive and develop in the face of these challenges, they are required to continuously transform their core business functions and strategies (Yannopoulos, 2011). The transformation effected by any organization must take the full advantage of the opportunities presented by the modern technology in order to reap the maximum benefit (Roco & Bainbridge, 2002). In today's business environment, it is a must to take the maximum advantage of Information and Communication Technology (ICT) to improve the quality, productivity and effectiveness of every aspect of business. The ICT has the power and the ability of transforming any sector or aspect of business (Laitner & Martinez, 2009). Thus leveraging the advances and developments of ICT is an essential component in any successful business transformation.

Cloud computing is the most recent arrival to the distributed computing market (Buyya, Yeo, Venugopal, Broberg, & Brandic, 2009). Cloud computing enables the delivery of computing resources including infrastructure, software and platform as services over the Internet. Due to the innovative way the resources have been made available by cloud computing as opposed to the traditional computing paradigms, they offer several advantages to consumers (Sharma & Gandole, 2011). These advantages include reduced cost, faster deployment, elimination of administration overhead, maximum return on investment etc. Due to these advantages, many organizations are moving towards cloud computing for realizing their computing needs (Priyadharshini, 2013). On the other hand many cloud service providers have flooded the market with their service offerings (Rimal, Choi, & Lumb, 2010). Thus it becomes necessary for customers to evaluate the service providers and their offerings for identifying and selecting the right provider who could provide the maximum benefit. In this chapter, the author takes an in depth look at the strategies that could be employed by customers to evaluate the prospective cloud providers for reaping the maximum benefit from the outsourcing their computing requirements.

## **ROLE OF INFORMATION TECHNOLOGY ON BUSINESS TRANSFORMATION**

Business transformation is one of the important topics that has been commonly discussed in the corporate circles today (Gruner, Power, & Bergey, 2013). Business transformation is not a hype that would vanish with time or a luxury that can be undertaken at leisure when time permits. It is a must that every organization must undergo, if it needs to succeed in business in the face of mounting challenges from every sphere internally as well as externally. The dynamic business environment driven by factors within and outside organizations is forcing them to change their strategies, models and processes (Kumar & Stylianou, 2014). The main goals of business transformation are multi faceted. These goals include finding ways to increase the efficiency of operations and processes, reduce the cost, empower employees, and serve customers innovatively. All these objectives put together would work to improve the quality of the products and services offered resulting in the increase in the overall value of the organization.

In today's information era, business transformation essentially involves handling data and information in an efficient and effective manner (Mujtaba & McFarlane, 2005). In today's businesses, information

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