

Chapter 11

Adopting and Integrating Cloud Computing

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ABSTRACT

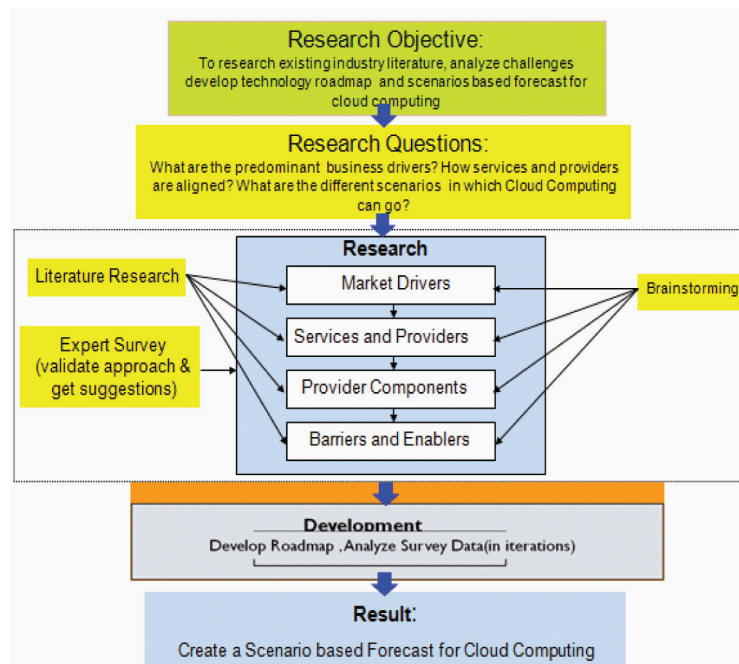
Cloud Computing has been around in the background in some shape or form for decades now. Yet people still ask – what is cloud computing? What can it do, and why should it be considered for growing technology needs? In the past, businesses have integrated cloud computing partially to meet their technology needs due to skepticism, reliability, and cost of the concept. However, the era is approaching where this could be a feasible solution that meets technology needs and assists businesses in meeting their goals in a reliable and efficient way. Can businesses be convinced yet? (O'Donnell, 2009). In a nutshell, cloud computing has grown over the last ten years and is still growing but making waves in the industry now more than ever, but why all this hype? Perhaps because cloud computing is seen as a viable replacement of enterprise owned local IT infrastructure (Francis, 2009).

INTRODUCTION

With technology innovation in mind, we researched various aspects of cloud computing. The objective of our study is to predict the adoption rate of Cloud Computing in the future with a soft timeline using a scenario-based forecasting model. In the course of our research, we identified key barriers preventing this transition, created a roadmap to outline the basics of cloud computing, identification of key areas for technology integration, performed a barrier analysis, and plotted a business adoption model. We concluded with recommendations and predictions in the next few years which could serve as a tool that businesses could use to determine if cloud computing is the right step in meeting their technology and business needs.

In order to highlight the multi aspects of Cloud Computing and all that it has to offer in the next ten years. A graphical roadmap was designed to explain Cloud Computing and all it encompasses. (refer to Figure 1) The roadmap is a high level overview of cloud computing, we identified market drivers, services, providers and the underlying technology components, which distinguish them in this area. Following this, we conducted surveys with experts in the Industry. We concluded that there are three key barriers from the surveys that would impact businesses in the next ten years. This assisted us in analysis throughout the paper. We then derived a business adoption model in respect to the data collected from the surveys, and categorized businesses into four main categories and predicted the adoption rate according to a time line and cost. This analysis led to the trend analysis section of this paper, and highlighted ma-

Figure 1. Research methodology



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