Chapter 79
Investigation Into Cloud Computing Adoption Within the Hedge Fund Industry

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ABSTRACT

Cloud computing is not associated with a specific technology, instead it as an alternative method to deliver technology as a service. This article investigates current cloud computing adoption in the United States (USA) and United Kingdom (UK) hedge fund industry. Hedge fund technologists, prime service consultants, technology service providers, industry application vendors, investors and an independent information security consultant participated were surveyed for this article. The article acknowledges the growth of cloud computing in the hedge fund sector. This research work also highlights that the private cloud definition is vague and requires further classification, elaborating on the variants of private cloud. This is important as the variants of private cloud computing offer varying benefits and risk which the hedge fund sector has proven to be sensitive. Equally, this article argues that some of the current security concerns are over-stated and perhaps reflect a conservative decision making framework rather than a realistic consideration of the options.

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1. INTRODUCTION

Cloud Computing is being adopted versatile manner by the different industries in the context of both in the private and public sectors. (Mell & Grance, 2011) defined various service models of cloud computing as Software as a Service, Platform as a Service and Infrastructure as a Service, which are luring the companies due to their benefits. Cloud computing is capable of reaping benefits of on-demand self-service, broad network access, resource pooling, rapid elasticity and measured service (Amin, 2013). Cloud computing offers alternative IT solutions to cut down the cost of IT infrastructure (Aljabre, 2012). The hedge fund industry is no exception and facing the pressure of to cut down the management fees charged to investors (Jones, 2013). Despite this lure, there are constraints to adopt the cloud computing specifically the public cloud deployment model in the context of control and ownership of portfolio data by the fund (Amin, 2013). The recognizing the requirements of each functional area and delivering them in customization manner depends upon the complexity work process and ease of use demanded by the end-users (Ziman, 2012), as each functional area differs in ease of use and complexity. Two pragmatic drawbacks are security and privacy and loss of governance and control (Susanto, Almunawar et al., 2012). (AlZain, Soh et al., 2013) also support the security is a major concern in the cloud computing.

A hedge fund's portfolio is a main portion of intellectual property. If security and or privacy were compromised the consequences could be catastrophic, just like happened in May 2017 the ransomware attacks affect the worldwide. This implies there is a need for careful thought of the picky options and approaches offered by the cloud computing concept and its application to the operation of hedge funds. Hedge funds are affected by extensive business constraints, particularly in IT operations need to cut down the costs and cloud computing emerge as right; though concerns are constraining adoption. The paper highlights the constraints and improvements which could fuel cloud adoption in hedge funding industry. In this research work various types cloud service and deployment models were studied. The advantages and disadvantages of cloud computing recognized in general. A survey was conducted in applications of cloud computing within the hedge fund industry concentrated on USA and UK based organizations. Determine the cause of adoption and rejection of cloud computing within hedge fund industry. Also, recommendations were made to ease the transition and improvement in adopting the cloud computing within hedge fund industry.

Further thee scheme of research paper as follows: Section 2 deals with background and literature where th review concepts of cloud computing, its risks and benefits and challenges present within the hedge fund sector. Section 3 covers the problem formulation, surveying approaches, tools and processes adopted to ensure a thorough survey was conducted. Section 4 begins with reviewing the actual survey method exercised and then presents the results from the various surveys. Section 5 applies critical analysis to the results, identifies key findings and offers ideas for improvements. Finally, the paper concludes by incorporating lessons learned and critically reviewing the complete study and recommendations for improvements and future work.

2. BACKGROUND

The National Institute of Standards and Technology offers an overview of cloud computing as:

"Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and ser-