Chapter 29
Cloud Service Footprint (CSF): Utilizing Risk and Governance Directions to Characterize a Cloud Service

Mohammad Shalan
JEA, Jordan

ABSTRACT

Cloud Computing (CC) services have made substantive advances in the past few years. It is rapidly changing the landscape of technology, and energizing the long-held promise of utility computing. Successful jump into CC is a considerable task, since the surroundings are not yet mature and the accompanied risk and governance frameworks are still evolving. This effort aims to portray an identity for CC services by employing risk and governance directions among other elements and techniques. Cloud Service Footprint (CSF) is considering practical aspects surrounding the CC paradigm and prescribing the associated directions. CSF will help Cloud Service Providers (CSPs) to characterize their service and benchmark themselves. The Client Enterprises (CEs) can utilize CSF dimensions to find a better way to navigate through CC service arena and to understand its parameters. Along with cost and functional capabilities, the Cloud Service Footprint (CSF) can provide enough information for business executives to evaluate CC services and make informed decisions.

INTRODUCTION

Cloud computing (CC) is increasingly asserted as the technology with the potential to change the way internet and information systems are being utilized into client enterprises (CEs). CC has emerged as a growing trend of scalable, flexible and powerful computing, capable of introducing a paradigm shift in how technology is delivering value to the business. With significant global investments, CC is showing the power to completely revolutionize the business mindset and to promote new business characteristics such as on-demand self-service, broad network access, shared resources, rapid provisioning and minimal intervention. However, CC benefits are not coming hassle free; several risks, technical concerns, contracting and compliance issues are surrounding the CC services.

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Some challenges arise because the adoption of CC services might begin outside the technology organization (TO) or against the CE strategy leading to loose associations. Other challenges are due to immaturity of particular CC service measures, even worse is the reduced maturity of CC associated risk and governance models. Business and technology teams have to increase correlation and communication to collectively agree upon the right balance.

This chapter consider few surroundings to portray a picture for CC deliberate challenges. It investigates the effects of maturity status on the enhancement of key CC service features and its value propositions. It then researches the governance abilities to orchestrate heterogeneous environments, setting rules and responsibilities, leading the way to maintain the CC phenomena. Risk management (RM) is called-out to handle the associated risks in a reliable and trustworthy way. This chapter devote to define a new term called Cloud Service Footprint (CSF) to portray an identity for a CC service.

The trust and trace natures of CC services provide a major motivation to characterize the CSF. When correlated to cost and functional capabilities, CSF deemed to be the third element to provide enough information for business executives to evaluate CC services and make informed decisions. This aligns to an early lesson, whereas realizing value from new services requires a mature organization that can recognize associated benefits and own the tools for effective performance management.

CSF dimensions and parameters are categorized in a systematic manner as related to the CC concepts to separate the potentially significant business benefits and threats from the hype and hyperbole that are surrounding. The conferred CSF components provide first pass among a jungle of elements that shape the CC structure. These components include architecture dimensions, data considerations, licensing and agreements, collaborations and adaptations in addition to the ethical and legal aspirations.

This chapter is factorizing the CSF dimensions as evidence-based insights while looking at CC benefits, associated risk elements and governance contributions. It appeals to both academics and practitioners. Its length and design precludes extensive treatment of each area, but highlighting some key concepts and practices that can help smoothing the CSF consideration and evaluation.

BACKGROUND

Cloud Computing (CC) represents the network of business platforms (Baya, Mathaisel & Parker, 2010). It is a new way to conceptualize and manage the integration between business and technology. Yet, there is no universal way to measure business and technology alignment in literature (HBR, 2011; De Haes & Grembergen, 2009). Risk and governance are gaining more space to reshape the cloud era. The parameters of CC services are extensively discussed in literature, similarly are risk management and governance. But, they are evolving with plenty of research dedicated to each topic individually or bi-combined (Aven, 2008; Ackermann, 2012; Goranson, 1999). We are jointly correlating these topics. The joint understanding is unique since everyone know these topics individually, but limited client enterprises (CEs) are doing all of it.

CC and technology transformations have reshaped significantly the business domains (Menken & Blokdijk, 2008). Usually we used to say that technology must support business strategy, nowadays, there are times when technology will lead into the next realm of the previously unthinkable (Vice, 2015). This is obvious today with many CEs are establishing technology in the core of their operations (Turban, Leidner, McLean & Wetherbe, 2008). This shift will require more collaboration between business people and technology organization (TOs) with both parties are invited to understand the terminologies and concepts of each other.