

Research Issues in Virtualization in Cloud Computing

Adesh Kumar

*Department of Computer Science
SLBSRSV, New Delhi India*

Abstract- Cloud computing technology proposes a complete online platform composed of a large number of services used while needed. Cloud computing provides its services in cost effective way via internet in a reliable and efficient way. Cloud computing reduces the investment on purchasing the hardware, software and software licenses by providing services on rental basis. It reduces the licensing cost and provides backups to keep multiple copies of data. Cloud computing technology proposes a complete online platform composed of a large number of services used while needed. In this paper a study has been carried out to find research issues in virtualization in cloud computing.

Keywords- Virtualization, Cloud computing, Services, characteristics, data centre.

I. INTRODUCTION

Cloud computing technology provides scalable and flexible technical infrastructure capabilities as an on-demand service (Singh and Kumar, 2014). The users can access cloud computing resources from any place, anywhere and at any time via any mobile computing devices such as laptops, mobiles, tablets or smart phones. In cloud computing technology, machines with large data centers can be dynamically provisioned, configured, controlled and reconfigured to deliver services in a scalable manner (Zissis and Lekkas, 2012). Cloud computing allows to efficiently manage upgrades and maintenance, backups, disaster recovery and failover functions (Zaharescu, and Zaharescu, 2012). According to Vaquero et al. (Vaquero et al., 2008), cloud guarantees are offered by the infrastructure provider by means of customised Service Level agreements (SLA). Cloud computing solves the potential problems of education, climate change, economics and terrorism (Kop and Carroll, 2011).

Cloud Computing Characteristics

Cloud computing has certain characteristics that are illustrated in figure 1.

Identifying the Quality Parameters for Virtualization in Cloud Computing

Adesh Kumar

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SLBSRSV, New Delhi India

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Keywords- Quality Parameter, Cloud Computing, virtualization.

I. INTRODUCTION

Cloud computing reduces the investment on purchasing the hardware, software and software licenses by providing services on rental basis (Pocatiu et al, 2010). It reduces the licensing cost and provides backups to keep multiple copies of data. Cloud computing technology provides scalable and flexible technical infrastructure capabilities as an on-demand service (Singh and Kumar, 2014). The users can access cloud computing resources from any place, anywhere and at anytime via any mobile computing devices such as laptops, mobiles, tablets or smart phones. In cloud computing technology, machines with large data centers can be dynamically provisioned, configured, controlled and reconfigured to deliver services in a scalable manner (Zissis and Lekkas, 2012). Cloud computing allows to efficiently manage upgrades and maintenance, backups, disaster recovery and failover functions (Zaharescu, and . Zaharescu, 2012) . According to Vaquero et al. (Vaquero et al., 2008), cloud guarantees are offered by the infrastructure provider by means of customised Service Level agreements (SLA). Cloud computing solves the potential problems of education, climate change, economics and terrorism (Kop and Carroll, 2011).

Cloud Computing Deployment Type-

Cloud computing has various deployment models that are accepted by cloud users today (Mell and Grance, 2009). Cloud computing can be classified as public, private, community or hybrid models as shown in figure 1.

Public cloud- Public cloud are available under pay-as you-go way consumption model to the general public. The cloud resources are hosted in the premises of the cloud service provider.



Figure 1. Cloud Computing Deployment Type