Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 9, August 2021: 3581-3591

Research Article

SPI Transactional Database using secure elastic cloud access with OOB

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Abstract

Security is the major issue in cloud computing that connects electronic media of diversified location. It is accessed by the privileged and authenticated user as the recent cloud computing trends proceeds towards server access which make the security concept more vital. Another factor considered in cloud access is the cloud virtualization that entirely depends on server along with the concept of distributed computing. This work focus on cloud authentication mechanism using Out of Band (OoB) mechanism that is used in cloud SPI model. In order to make the authentication mechanism stronger the proposed method takes the challenge of handling storing authentication mechanism for SPI cloud model instead of using two phase authentication model.

Index terms: SPI model, two phase authentication, Out of Band, Privileged cloud

Introduction

The cloud model comprises of SPI model that includes Software, Platform and Infrastructure as its services. Every application used in cloud or taken from the cloud services referred as cloud application that is accessed from the cloud server. The access of application taken from the cloud server needs strong authentication mechanism [Choudhury, Amlan Jyoti, 2011]. It assists the user to gain stronger authentication access to gain momentum of the cloud access. As the cloud server may present anywhere so as the user, the authentication mechanism need to be stronger for providing access grant to the user. It also provides greater flexibility of the cloud server access to the user for all its Software, Platform, and Infrastructure.

The different categories of cloud access are its Public, Private and Hybrid cloud access. As the cloud access are updated frequently the new version has more features for sharing information, its access using the concept of virtualization, scalability, utilization of its software, platform, and infrastructure as a services, in distributed approach. While addressing the impact of security issues by the cloud performance [K.Xiong and H.Perros, 2009] that is evaluated using cloud resource utilization, and its security concern in cloud virtualization in distributed cloud approach is addressed with two phase