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# MetaCloudDataStorage Architecture for Big Data Security in Cloud Computing

Gunasekaran Manogaran<sup>a</sup>, Chandu Thota<sup>b\*</sup>, M. Vijay Kumar<sup>c</sup>

<sup>a</sup> VIT University, School of Information Technology and Engineering, Vellore, Tamil Nadu, India.

<sup>b</sup> Infosys Hyderabad, Telangana, India

<sup>c</sup> Rayalaseema University, Kurnool, Andhra Pradesh, India.

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## Abstract

The cloud is increasingly being used to store and process the big data. Many researchers have been trying to protect big data in cloud computing environment. Traditional security mechanisms using encryption are neither efficient nor suited to the task of protecting big data in the Cloud. In this paper, we first discuss about challenges and potential solutions for protecting big data in cloud computing. Second, we propose MetaCloudDataStorage Architecture for protecting Big Data in Cloud Computing Environment. This framework ensures efficient processing of big data in cloud computing environment and gains more business insights.

*Keywords: Big Data Architecture, Big Data Security Architecture, Cloud Computing*

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## 1. Introduction

### 1.1. Cloud computing

Cloud computing can be defined as five attributes such as Massive Scalability, Multi-tenancy (Shared Resources), Elasticity, Pay as You go and Self-Provisioning of resources. Cloud computing enables user to access the remote servers hosted on the internet to store and process the data. Service models of cloud are classified into three types such as SaaS, PaaS, IaaS and different deployment models are classified into Private, Public, and Hybrid. Due to the high availability of cloud to all end users, cloud computing faces more security challenges. These challenges are classified into two broad categories as security issues faced by cloud providers and security issues faced by Customers.

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\* Corresponding author. Tel.: +91 8121813283;  
E-mail address: [chandutmca@gmail.com](mailto:chandutmca@gmail.com).