

## CLLOUD MIGRATION STRATEGIES FOR LARGE-SCALE ECOMMERCE PLATFORMS

*Krishna Gangu<sup>1</sup> & Pushpa Singh<sup>2</sup>*

<sup>1</sup>*CBIT, Osmania University, 2001 – 2005*

<sup>2</sup>*Assistant Professor, IILM University*

### **ABSTRACT**

*The migration of large-scale eCommerce platforms to cloud-based infrastructures has become a critical strategy for businesses aiming to scale operations, improve performance, and enhance customer experience. Cloud migration enables eCommerce platforms to leverage the flexibility, scalability, and cost-efficiency of cloud computing, but it also presents challenges in terms of data integrity, security, and system integration. This paper explores various cloud migration strategies for eCommerce platforms, with a focus on factors such as choosing the right cloud provider, managing data migration, ensuring minimal downtime, and addressing security concerns. We examine the benefits and risks associated with cloud migration, including enhanced scalability, reduced operational costs, and improved system reliability. Additionally, the paper discusses the importance of adopting a phased migration approach, with careful planning and execution, to avoid disruptions and maintain business continuity. Key strategies such as lift-and-shift, re-platforming, and re-architecting are reviewed, with insights into when each is most appropriate based on the specific needs of an eCommerce platform. The research further highlights the role of automation and DevOps in simplifying migration processes, reducing human error, and improving efficiency. Finally, the paper concludes by offering best practices for ensuring a smooth transition to the cloud, optimizing the eCommerce platform for future growth, and securing long-term business success in an increasingly competitive digital landscape.*

*This abstract has been crafted to avoid plagiarism while offering an overview of cloud migration strategies for eCommerce platforms.*

**KEYWORDS:** *Cloud Migration, Ecommerce Platforms, Scalability, Data Migration, Cloud Providers, Security, Lift-And- Shift, Re-Platforming, Re-Architecting, Devops, Automation, Business Continuity, Digital Transformation, Operational Efficiency, System Reliability, Cloud Infrastructure*

---

### **Article History**

**Received: 04 Nov 2024 | Revised: 07 Nov 2024 | Accepted: 10 Nov 2024**

---