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IMPLEMENTING DATA INTEGRATION AND MIGRATION FRAMEWORKS FOR MULTI-CLOUD ENVIRONMENTS

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ABSTRACT: *The rapid adoption of multi-cloud environments has necessitated robust data integration and migration frameworks that address the complexities of managing diverse data sources and services. This paper explores the challenges and best practices in implementing effective data integration and migration strategies across multiple cloud platforms. It examines key concepts such as interoperability, data consistency, and security, highlighting the importance of seamless data flow between on-premises systems and cloud environments. The study presents a comprehensive framework that encompasses data extraction, transformation, loading (ETL), and synchronization processes, ensuring minimal disruption to business operations. Furthermore, it discusses the role of automation and orchestration tools in streamlining data workflows, enhancing efficiency, and reducing operational costs. By providing a systematic approach to data integration and migration in multi-cloud settings, this research aims to assist organizations in leveraging the full potential of their cloud investments while maintaining data integrity and compliance.*

KEYWORDS: *Data Integration, Data Migration, Multi-Cloud Environments, ETL Processes, Interoperability, Data Consistency, Cloud Platforms, Automation, Orchestration Tools, Data Synchronization, Cloud Compliance, Operational Efficiency*