SAFEGUARDING ORGANIZATIONAL DATA ASSETS THROUGH EFFECTIVE DATA INTEGRITY MANAGEMENT

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ABSTRACT

Data integrity management ensures that data remains accurate, consistent, and trustworthy throughout its lifecycle. This article explores the principles, methods, and technological tools used to maintain data integrity. It highlights how integrity management supports compliance, risk reduction, operational reliability, and decision accuracy within modern data-driven organizations.

Keywords: Data integrity, data validation, data governance, consistency, accuracy, data lifecycle management.

INTRODUCTION

In a digital ecosystem where data drives operations, strategy, and innovation, maintaining data integrity becomes indispensable for organizational success. Data integrity management involves ensuring that data remains accurate, consistent, valid, and unaltered across storage, transmission, and processing stages. It encompasses a range of processes including validation rules, access control mechanisms, encryption, version management, and audit trails. Weak integrity management can lead to data corruption, operational breakdowns, compliance violations, and flawed decisions. As organizations expand their digital infrastructures to include cloud platforms, distributed systems, and automated workflows, integrity risks increase. To address these challenges, modern integrity management incorporates blockchain verification, AI-based anomaly detection, and automated correction mechanisms. Beyond technical measures, establishing strong governance structures, clear accountability, and standard operating procedures ensures that data integrity is a shared responsibility across the organization.

CONCLUSION

Data integrity management is fundamental to maintaining reliable, consistent, and trustworthy information assets. By combining governance frameworks, technological tools, and organizational best practices, enterprises can protect data from corruption and misuse. Effective integrity management enhances decision precision, regulatory compliance, and operational continuity. As digital ecosystems evolve, continuous monitoring and innovation in integrity practices will remain crucial for safeguarding organizational data assets.

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