

# Integration of Cloud Computing in Business Information System Development

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**Abstract:** *This paper provides a concise overview of the exploration into this integration, encompassing its historical evolution, fundamental concepts, benefits, challenges, and best practices. Cloud computing, emerging from its roots in virtualization technology, has evolved into a versatile framework offering an array of service models to cater to diverse organizational needs. Cloud-based solutions empower businesses to optimize resource allocation, expedite application deployment, and adeptly respond to evolving demands. Real-world case studies underscore the tangible advantages of cloud integration, from cost savings in e-commerce to streamlined patient data management in healthcare. Surveys highlight unanimous recognition of cloud benefits, including improved accessibility, cost-effectiveness, and agility, while underlining the imperative of robust security measures. Comparative analysis of cloud service models reveals a spectrum of options – Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS) – providing tailored integration strategies. Expert insights and a framework guides organizations through security, compliance, and migration complexities, while methodologies and guidelines facilitate well-informed integration journeys. The results quantify performance enhancements, endorsing the strategic investment in cloud technology. In conclusion, the integration of cloud computing is not merely a technological advancement but a strategic imperative, positioning organizations at the vanguard of innovation, efficiency, and sustained success in an interconnected, data-driven landscape.*

**Keywords:** Cloud Computing Integration, Business Information Systems, IS Development

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