

Secure Cloud Computing: Challenges, Best Practices, and Future Directions

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Abstract: *Cloud computing has revolutionized the way organizations store, process, and access data and applications. However, the adoption of cloud computing introduces new security challenges that must be addressed to ensure the confidentiality, integrity, and availability of information. This research paper examines the challenges associated with secure cloud computing and presents best practices to mitigate these risks. The paper covers areas such as data encryption, access control, network security, data backup and disaster recovery, secure coding practices, monitoring and logging, compliance and certifications, data segregation, regular security audits, and employee training and awareness. By implementing these best practices, organizations can enhance the security of their cloud environments and protect their valuable assets. Additionally, the paper discusses the evolving landscape of cloud computing and identifies future directions for enhancing cloud security.*

Keywords: Cloud computing

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