Approaches to Curbing Data Breaches in Internet Banking based on Cloud computing

Abstract

Cloud computing is a popular theme of research in information systems. It has revolutionized the perspective of distributed computing from existing methods. Although cloud offers great benefits, it does introduce security threats to the information and data which is currently moved from on-premises to off-premises. Due to the openness of data, cloud computing has been experiencing security threats that must be overcome for this service to be fully utilised. One such threat is data breach, this is because data is stored in different places across the globe hence difficult for security to be monitored. Therefore, security and privacy of data are the two major concerns of users in the cloud technology. Internet banking applications have become popular within banks and almost each bank has got its own service. The login and signature security vary from user/static password authentication method (it is alleged as the weakest way to manage one’s accounts) to certificates and tokens. Considering the confidentiality of this information, for instance passwords and bank accounts, banks need to identify, evaluate and solve distinct risks to security in regard to cloud computing in their management information security system. This paper sought to establish the available security measures employed in
curbing data breaches, their shortcomings and suggest possible solutions. The paper employed a descriptive survey research design; a pre-tested questionnaire was used to collect data from the 46 banks that use internet banking in Kenya. The study found that the banks had employees who were certified in security matters but none was certified in cloud computing security and recommended Staff Training and certification on Cloud Computing Security, cloud computing and resource management.

References

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Index Terms

Computer Science Distributed Systems

Keywords

Curbing, Cloud computing, Cloud security, internet banking, data breaches