UNIVERSITI TEKNOLOGI MARA

DIGITAL FORENSIC DATA COLLECTION IN CLOUD COMPUTING USING LOGIC MODEL

AIMAN INSYIRAH BINTI ALAM

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ABSTRACT

Cloud computing is arguably one of the most discussed information today. It presents many promising technological and economical opportunities. However, there are quite a number of hiccups along the way where customers remain reluctant to move their business IT infrastructure completely to the cloud. One of the main concerns is cloud security and when threats are unknown. Cloud Forensics constitutes a new and troublesome issue for investigators. Due to the decentralized nature of data processing in the cloud, traditional approaches to evidence collection and recovery are no longer practical. The purpose of this study is to investigate existing data collection in computer forensics in a cloud computing environment focusing in a Software as a Service (SaaS) and Infrastructure as a Service (IaaS) environment and adopted a model for data collection in cloud computing forensics using logical model. This study involved three phases. The preliminary study allows an exploratory activity in understanding the security of cloud computing from digital forensics point of view. Next a logic model is adopted based on the input and understanding gathered on the preliminary study. Finally interviews with five IT Security-expertshave been conducted to evaluate the logic model that had been adopted. The study has adopted a logic model for data collection in SaaS and IaaS environment. The logic model consists of components such as inputs, activities, outputs and outcomes which provide clear explanation of each process. The adopted logic model is useful for researchers to develop digital forensics data collection tool which can be used in cloud computing environment.

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