

Cloud computing is the technology that enables individuals and businesses to utilize computing services (e.g. online file storage, social networking sites, webmail) and a shared pool of resources (e.g. data storage space, networks, user applications) from anywhere over the Internet. Cloud computing has become popular as a cost-effective and convenient computing paradigm. However, cloud computing architecture is at its infancy stage and lacks support for security and forensic investigations. Due to the distributed and virtual nature of cloud, malicious activities can be carried out very easily and are very difficult to subsequently investigate. Cloud forensic investigators currently face challenges as they lack forensic tools and techniques in context of cloud. This highlights the need to develop the new research area of digital forensics in the cloud computing model. This paper presents a cloud forensic process that consists of (i) Identification, (ii) Collection/Acquisition and preservation, (iii) Examination/Processing and analysis, and (iv) Results dissemination phases. In addition, this paper develops the proposed forensic process as a service (FPaaS) using cloud-based Business Process Execution Language (BPEL) that combines the four phases/services into a new composite service called FPaaS.