

This paper studies the issues of Big Data Analytics (BDAs) or the Internet of Things (IOT) and its implementation in the Cloud Computing Environment with a full thrust consideration to the Fully Homomorphic Encryption Scheme (FHE). The FHE is a computational algorithm that allows the computations on encrypted data; and yet, when the outputs of the computations of the encrypted data are decrypted, they still conform to the operations of the original plaintext. The Bootstrapping of the Somewhat Homomorphic Encryption Scheme (SWHE) of the Craig Gentry's PhD thesis was studied; an algorithm that continuously reduces the inherently noisy ciphertext parameters of the Ideal Circuit at each computational iteration stage, and thus, gives more room for the less noisy ciphertext computation in the cloud based the application of addition and multiplication operations. The FHE implementation on Big Data Analytics Security on the cloud computing was discovered to have boosted confidentiality, Integrity and Availability of the Big Data resources in the cloud computing environment. Most especially, the issue of privacy was considered achieved. This achievement of Bootstrapping algorithm for the FHE is now applied to compute ciphertexts with the private-key embedded in the ciphertext and upload in the cloud. Fully Homomorphic Encryption Scheme is able to decrypt and write new ciphertexts in the Cloud without the private-key being compromised. The paper concluded that the advent of Bootstrapping in FHE has accelerated the implementation BDAs as most security issues previously in existence based on the traditional FHE has been fully ameliorated. With this mitigation for effectual security based on the new advancement, the implementation of the Big Data Analytics has been adequately improved upon. The paper also examines the application of the FHE that will bootstrap cloud-based businesses and e-governance in the developing economies. The paper concludes that Big Business Associations such as the google.com and Amazon.com, amongst other enterprises; are benefitting on this BDAs drift. FHE can also be implemented in counting-voting and many more