

Algorithms AES Based Secure User Data in Cloud Computing Using Encryption Quantum Chaotic

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Abstract

Cloud computing refers to the emerging computing environment in which machines are used in large data centers to provide scalable services. The advantages of cloud computing can be reduced costs, easy maintenance, accessibility and resource availability. Moving organizations toward cloud computing mean using storage services provided by cloud providers. Increasing demand for cloud applications has led to an increase in the need for security mechanisms. More serious concerns are the possibility of non-confidentiality, comprehensiveness, and identity authentication among cloud users and service providers. Therefore, since security is one of the most important issues in cloud computing, data protection needs to be protected against unauthorized access. Cryptographic standards can be used to maintain operation security and storage. Cryptographic algorithms play the key role in cloud computing data security against unauthorized attacks. so the need for secure and stable services is essential. In order to create security issues in the cloud, cryptographic algorithms are used. In this paper, we propose a data protection model in which data is encrypted before being placed in the cloud using the proposed algorithm, and so we can improve the confidentiality and security of the dat. We will show new s that the designed substitution box according to quantum chaos mapping was proper for AES system and had a better performance than the substitution box of AES system. It will be shown that the suggested substitution box is resistant to linear and differential attacks.

Keywords: User Data,cloud computing, quantum chaos, system substitution box, mapping, Advanced