

Chaos Cryptography in Cloud Architectures with Lower Latency

Authors : Mohammad A. Alia

Abstract : With the rapid evolution of the internet applications, cloud computing becomes one of today's hottest research areas due to its ability to reduce costs associated with computing. Cloud is, therefore, increasing flexibility and scalability for computing services in the internet. Cloud computing is Internet based computing due to shared resources and information which are dynamically delivered to consumers. As cloud computing share resources via the open network, hence cloud outsourcing is vulnerable to attack. Therefore, this paper will explore data security of cloud computing by implementing chaotic cryptography. The proposal scenario develops a problem transformation technique that enables customers to secretly transform their information. This work proposes the chaotic cryptographic algorithms have been applied to enhance the security of the cloud computing accessibility. However, the proposed scenario is secure, easy and straightforward process. The chaotic encryption and digital signature systems ensure the security of the proposed scenario. Though, the choice of the key size becomes crucial to prevent a brute force attack.

Keywords : chaos, cloud computing, security, cryptography

Conference Title : ICCINS 2017 : International Conference on Computer, Information and Network Security

Conference Location : Istanbul, Türkiye

Conference Dates : September 28-29, 2017