TOWARDS SECURING DATA IN THE CLOUD

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ABSTRACT

Clouds are rapidly becoming a platform of choice for hosting increasingly complex application software and services. Among the attractive features they offer are elasticity and pay-as-you-go model, which allow businesses to gain access to vast computing resources with minimum upfront investment, and operational costs. Although a great deal of progress has so far been made with respect to the low-level technological underpinning of the clouds, today's clouds are still considered to be insufficiently trustworthy to serve as a computing platform for critical infrastructure (such as e.g., financial or power grid) operators and public administration sectors. Cloud computing has evolve to minimize IT expenses and to provide agile IT services to individual users as well as organizations. It moves computing and data away from desktop and portable PCs into large data centers.

This technology provides the opportunity for more innovation in lightweight smart devices and it forms an innovative method of performing business. Cloud computing relies on the internet as a medium for users to access the required services at any time on pay-as-you-go pattern. Nevertheless this technology suffers from threats and vulnerabilities that hinders the users from solely relying on it. Various malicious activities from illegal users have threatened this technology such as data misuse, inflexible access control and limited monitoring. The occurrence of these threats may result into damaging or illegal access of critical and confidential data of users. This research paper describes the various types / methods of cryptographic encryption that would benefit users who might want to switch to the cloud or are currently using the cloud platform.

KEYWORDS: Cloud, Data, Cryptography, Encryption, Security