Secure Hashing Algorithm and Advance Encryption Algorithm in Cloud Computing

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Abstract : Cloud computing is one of the most sharp and important movement in various computing technologies. It provides flexibility to users, cost effectiveness, location independence, easy maintenance, enables multitenancy, drastic performance improvements, and increased productivity. On the other hand, there are also major issues like security. Being a common server, security for a cloud is a major issue; it is important to provide security to protect user’s private data, and it is especially important in e-commerce and social networks. In this paper, encryption algorithms such as Advanced Encryption Standard algorithms, their vulnerabilities, risk of attacks, optimal time and complexity management and comparison with other algorithms based on software implementation is proposed. Encryption techniques to improve the performance of AES algorithms and to reduce risk management are given. Secure Hash Algorithms, their vulnerabilities, software implementations, risk of attacks and comparison with other hashing algorithms as well as the advantages and disadvantages between hashing techniques and encryption are given.