Comparison of Security Level in RC6 and Rijndael Algorithms

Tin Maung Htwe, Win Zaw

University of Computer Studies, Yangon

tmghtwe@gmail.com, winzaw@gmail.com

Abstract

Internet and network applications are growing very fast, so the needs to protect such applications are increased. Encryption algorithms play a main role in information security systems. On the other side, those algorithms consume a significant amount of computing resources such as CPU time, memory , and battery power. This paper provides evaluation of two of the most common encryption algorithms namely: AES(Rijndael) , and RC6. A comparison has been conducted for those encryption algorithms at different settings for each algorithms such as different sizes of data blocks, different data types , battery power consumption, different key size and finally encryption/decryption speed. Simulation results are given to demonstrate the effectiveness of each algorithm and finally a monitoring system that will provide the comparison of Security Level in RC6 and Rijndael algorithms.