



A Comparative Study and Performance Evaluation of Cryptographic Algorithms: AES and Blowfish

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Abstract: There are many aspects of security ranging from secure commerce and payments to private communications and protecting passwords. One essential aspect for secure communications is that of secret key Cryptography. It is the automated method in which security goals are accomplished. It includes the process of encryption that converts plain-text into cipher-text. The process of decryption reconverts the cipher-text into plain-text. Secure communication is the prime requirement of every organization. To achieve this, one can use many techniques or algorithms available for Cryptography. Various models were developed for the encryption in which keys were generated from the available data. ADVANCED ENCRYPTION STANDARD (AES) and BLOWFISH are commonly used for network data encryption. The main objective of this dissertation is to analyze encryption security, evaluated encryption speed and power consumption for both the algorithms. It is proved that the Blowfish encryption algorithm may be more suitable for wireless network application security.

Keywords: AES, Blowfish, cryptography, Information security.

