

ABSTRACT

COMPARISON OF RC4 AND RIJNDAEL ALGORITHM ON SMS' ENCRPTION AND DECRPTION

by

KARTIKA SEPTIANINGRUM

Short Message Service (SMS) is one of mobile phone's facilities that are used for sending information to other people. Many irresponsible actions are trying to take that information illegally. Because of the problem, codeword is needed to keep the originality and the safety of the message using cryptography. From many kinds of crypto graphical algorithms, RC4 and Rijndael algorithms are able to be used for message encryption and decryption.

In this research, an application used for applying RC4 and Rijndael algorithms are created and developed using Java ME programming language. This application is also used for comparing the times of encryption and decryption of the text message on both algorithms. Based on the result of the test by running this application on mobile phone, the average times of encryption and decryption are 311.6 ms and 495.6 ms each on RC4 algorithm. And the average times of encryption and decryption on Rijndael algorithm are 630.4 ms and 635.3 ms each.

Key Word: Algorithm, Decryption, Encryption, Java ME, Cryptography, Compare, RC4, Rijndael, SMS