ABSTRACT

Security has become a major aspect of an information system. A general information only intended for a certain community. It is therefore very important to prevent it from falling to other parties who are not interested. Issues of data security and confidentiality is very important in an organization or individual. Moreover, if the data is located in a network of computers connected with a public network such as internet. Of course, very important data can be viewed or hijacked by unauthorized persons. It's certainly not because we wish we could have the data that is private, because if this is likely to happen possibility damaged the data or can be lost even that will cause huge material losses.

Cryptography is really a study of mathematical techniques related to security aspects of an information system, such as confidentiality, data integrity, authentication, and the absence of denial. At this final project will be an application program aims to analyze *the perfomance of comparison by calculating time process the Encryption and Decryption of data in terms of security and then used two methods, namely Avalanche Effect By Plaintext and Avalanche Effect By Key using the method of Rijndael and Triple DES Encryption.*

After going through the design process to capture some of the sample by using an application program that has been created it can be concluded that the calculation time Rijndael Encryption and Decryption faster than Triple DES, Long time Encryption and Decryption process is directly proportional to the size of a file, a small change in the plaintext will be an effect on the output ciphertext, and the Avalanche Effect calculations done in two ways by Plaintext Avalanche Effect and Avalanche Effect by Key.

Key Word : Kriptografi, Encryption, Decryption, Plaintext, Chipertext, Rijndael, Triple Des, Avalanche Effect by Key, Avalanche Effect by Plaintext