ABSTRACT

Short Messaging Service (SMS) is services that most widely used to convey information. Information that sent by using SMS is very diverse, from the usual information to highly confidential information. To maintain the confidentiality of the message is by developing a study of how security information / messages known as cryptography. Cryptographic Algorithms that exist are symmetry and asymmetry. Called algorithm symmetry because the key that used to encrypt and decrypt message has same value, and for algorithm asymmetry the key that used to encrypt and decrypt message has different value. One of the symmetry of the cryptographic algorithms is algorithm Feistel.

Nowadays, many smartphone that are available, one of them is smartphone that use Android operating system that can send messages, to maintain the security of the message is by developing applications that can maintain the confidentiality of messages on Android phone. This app is uses Feistel algorithms structure with key phone number destination and user. On this algorithm is also added the permutation and feedback to improve avalanche effect.

ased on test results, to encrypt a message this application requires a time 0.059 seconds, but to decrypt the cipher text takes 0.0439 seconds. The testing process to find the value of avalanche effect, obtained an average 53.9% avalanche effect but for the testing that using brute force attack takes a very long time it's about 1392.588 years. With the creation of Cryptography SMS application can help maintain the important and confidential information that usually sent via SMS.

Keywords: Cryptography, Encryption, Decryption, Symmetry, asymmetry.