

Abstract

Short Message Service (SMS) is one of the mobile communication service is very popular now. In addition to effective, cost considerations become cheaper to use this service. In doing delivery via SMS message, security is very important. Security here include security of the message and the parties communicate. The parties would want to communicate that the message content remains awake authenticity and identification of the sender and the recipient is still awake truth. To overcome the problem required an authentication mechanism and message encryption.

Message Authentication Code (MAC) is one way to check the integrity and authentication of a message based on the secret key. Meanwhile, to handle the confidentiality of the message content Rijndael encryption algorithm used. Hash one-way function that is used in the process of value generation to its MAC is Secure Hash algorithm (SHA).

In this final task will build an application that implements the method and the MAC algorithm Rijndael cryptography for authentication and message encryption. Analyzed based on the application response time to the process of authentication, encryption, and verification

Keywords: SMS, MAC, Rinjdael, hash function, secret key.