Abstract

One of the technologies that are often used to send messages at the moment is SMS or Short Messaging Service. This is one of the basic mobile phone services. An SMS consist of 160 character or 140 bytes at maximum. It’s possible for users to send messages over 140 bytes or 160 characters, however this will cost more than the normal rate. This is because the message consist of more than one page, so the message delivery process will be sent according to the number of pages needed. In addition, the confidentiality of message’s contents that user sent are not guaranteed, so the message can be read by everyone. This Final Project, built an application that can minimize the number of message’s pages and increase security when sending SMS. The application intended for mobile phone that support Java MIDP 2.0. The application uses two methods of compression and three methods of encryption. Compression methods used are Huffman and LZW, while the encryption methods are AES-128, AES-192 and AES-256. To measure the ability of this application, this Final Project carried out some testing. Based on experiments, the method of encryption increases security in SMS and the method of compression reduces the number of characters about 23.98% as well as providing security. If both methods are combined, they will provide a double security mechanism on SMS messages.