ABSTRACT

Confidentiality of data has become an object of research that has been developed in the process of sending information. However, privacy in voice communications today is still not guaranteed. Therefore, required an appropriate method for transmission of information can now be more safeto use. Many technologies that use encryption as the current information delivery technology.

In this final test discuss about the security solutions voice messages using encryption. Encryption is the process of securing data (voice mail) so that unauthorized parties not understand the voice message. Encryption algorithm used in this final test is shared-key encryption algorithm block cipher MARS. This block cipher algorithm will cause a greater delay than the stream cipher algorithm. Therefore, MARS algorithm should be adjusted for delay that caused a small and maintained real-time property.

In this final test, changes are made by changing the operating mode MARS become counter operating mode is said to alter the efficiency of block cipher into stream ciphers and do resemble the key separation in the sub-band.

From the test results can be concluded the system can be realized by generating atime delay is 0.155053 ms,and comparison the same input and output files. Value avalanche effect by changing 1 bit key reaches 51,25%, while based on 1 bit plainteks change the amount of 0,781%. Time to make Bruce force attack is 2:28 x 1025 years.

Keywords : *Enkripsi, Cipher Block, MARS,sub-band.*