APPLICATION OF AES 128 (ADVANCED ENCRYPTION STANDARD) CRYPTOGRAPHIC ALGORITHM FOR ARCHIVE DATA SECURITY
(Case Study: Gemolong Village Unit Cooperative, Sragen)

DIDIK NOWO HARIYANTO WIDODO

Informatics Study Program Faculty of Science & Technology
University of Technology Yogyakarta
Jl. Ringroad Utara Jombor Sleman Yogyakarta
E-mail : didik8736@gmail.com

ABSTRACT

The Gemolong Village Unit Cooperative is a cooperative that is engaged in services and also manages several village-owned businesses including fertilizer sales, electricity payments, and savings and loans. Until now, all cooperative data has been computerized on a computer. However, the data archive has not implemented a security system, while the computer used can be accessed by anyone, so it is very risky if someone who is not responsible accesses sensitive and valuable information. With these constraints, a data security system was created, where the system is web-based and in the system there are several access rights in order to maximize data security, especially archive data. In making this data security system one of the modern cryptographic methods (Symmetrical Algorithm) is used, namely the AES (Advanced Encryption Standard) cryptographic algorithm method. The implementation of the AES (Advanced Encryption Standard) cryptographic algorithm in securing archive data is applied to the encryption (input) and decryption (output) processes of files. From the results of the process, if the user inputs the file encryption occurs, otherwise if the user wants to open the file, the file will be decrypted. So that later the system can help maximize the process of securing archive data or other data.

Keywords: Data security, Cryptographic Algorithm AES (Advanced Encryption Standard), Encryption, Decryption, Archived Data.