Digital Document Security Model Using Android-Based AES-256 Algorithm

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ABSTRACT

Advanced Encryption Standard (AES) is a symmetric cryptographic algorithm based on ciphertext blocks that is capable of encrypting and decrypting data to increase information security. The data collection technique used is document study which is considered the most strategic step in research because it can produce data that meets standards. This research produces an Android application system for securing company digital documents by utilizing AES-256 as the cryptographic algorithm. The process of encrypting digital document data using the AES-256 algorithm is carried out on the backend by utilizing the Node js library, namely the Node.js Crypto Module. Based on the results of this research, it can be concluded that a digital document security model has been created using the Android-based AES-256 algorithm. This application has succeeded in properly securing company digital document files in docx, pdf, csv/xlxs, png/jpg formats. Document files that have been successfully encrypted cannot be opened except by using this application based on the appropriate key and token.

Keywords: Document Security, AES-256 Algorithm, Encryption, Decryption