

**EMPLOYEE DATA SECURITY APPLICATION
USING AES ALGORITHM WITH CLOUD
COMPUTING SERVICES
(Case Study: PT Geekgarden Software House)**

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ABSTRACT

Employee data is the data of individual employees who work for an agency/organization and is private in nature so that to prevent misuse, employee data needs to be taken with security measures. Data security is a concept for protecting data, the author proposes a privacy data security system using cryptography. Cryptography is a security method that can be implemented to secure employee data by changing information from a form that can be understood into a form that cannot be directly understood. Advanced Encryption Standard (AES) is a type of cryptography that will be used to secure employee data. The aim of the research is to secure employee data at the PT Komuri Indonesia Geekgarden agency from access by unauthorized foreigners by designing and implementing a data security system using the AES cryptography method and Cloud Computing services. System testing is carried out using the black box method to ensure all functions run according to specifications. Black box testing shows that this algorithm can produce ciphertext encryption that cannot be understood directly and produce plaintext decryption that is exactly the same as the original data. Thus, this system is able to protect employee personal data and the confidentiality of employee data from potential misuse by unauthorized parties.

Keywords: *Security, Data, Applications, Cloud Computing, Advanced Encryption Standard*