An Implementation of Blockchain Technology in Forensic Evidence Management

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Abstract*: The importance of crime forensic data in the criminal justice system is paramount. However, traditional methods of storing this sensitive information have been plagued by issues such as the risk of tampering, human error, and cyber-attacks. This paper proposes a ground breaking solution that leverages Block chain technology to create a tamper-sproof, decentralized repository for crime forensic data. Unlike existing techniques, which often rely on manual documentation or centralized servers, the proposed block chain-based system offers inherent data integrity, auditability, and security features. By shifting to a decentralized model, we not only reduce the risk of unauthorized alterations but also facilitate a more transparent and trustworthy environment for all stakeholders involved in the judicial process. The paper delves into the architectural considerations, security features, and potential challenges associated with implementing this blockchain-based system. Preliminary results indicate that this approach could significantly enhance the credibility and reliability of crime forensic data, thereby contributing to a more just and effective criminal justice system.*

Keywords: Blockchain, Forensic evidence, Management, Implementation