Summary\_of\_RISCFramework

This paper proposes a blockchain-based Risk and Information System Control (RISC) framework as a mechanism for sharing risk information among insiders, IoT devices and information systems. The author explains each stage of the life cycle of RISC – Risk Identification, Assessment, Response & Mitigation and Monitoring & Reporting. The research has designed three types of risk smart ledgers and the Merkel tree is used to establish relationship between them. To avoid continuous monitoring, the study designs three risk smart contracts for automatic risk calculation and approval flow control during each of the four stages of the life cycle. The paper gives a description of the system architecture and network structure of the blockchain-based RISC prototype. Through blockchain technology, it can be ensured that all IT risks are evaluated without bypassing any risks. The study covers three common blockchain-based risk alleviation responses. Blockchain technology effectively handles Backtracking, Tracking, Falsification and Multi-trust issues in the traditional RISC making RISC more efficient.