BC-SBOM: Blockchain-based SBOM Management System

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***Abstract*— This paper presents BC-SBOM, a novel blockchain-based system designed to enhance the management of Software Bills of Materials (SBOMs). By leveraging blockchain technology, BC-SBOM ensures secure storage and sharing of SBOMs, while providing a comprehensive global view of dependencies among software components. The system also supports rapid propagation of alerts for newly discovered vulnerabilities, thereby increasing responsiveness to potential threats. Offering superior reliability, transparency, and availability compared to traditional SBOM tools, BC-SBOM aims to significantly improve the management of complex software systems and contribute to the advancement of software security practices.**

***Keyword*— Blockchain, SBOM, Decentralization, Dependency, Vulnerability**

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