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(57) Abstract :

A self-sovereign, decentralized, and distributed identity management system (100) for blockchain technology, addressing limitations in traditional systems is described. The proposed system incorporates a decentralized database (112), coupled with an artificial intelligence (AI) engine (102), to record and verify identity information and transactions of entities over a blockchain network (104). Digital identities are created using public and private keys, granting individuals control over their personal information without relying on central authorities. The proposed system provides enhanced security, privacy protection, transparency, and scalability, making the system suitable for various applications requiring robust identity verification and trust in a digital ecosystem.

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