

عنوان مقاله:

Decentralized App Store and License Management Using Smart Contracts and Self-Sovereign Identities

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خلاصه مقاله:

Mobile applications are playing an important role in our digital lives. App stores can be considered key components in the ecosystem of mobile applications. They assist users to ensure the authenticity of applications and protecting the intellectual property rights of application developers. In this paper, we introduce an autonomous decentralized mobile application distribution platform (app store) and a license management solution that utilizes a public blockchain and operates by smart contracts. We identify developers by their decentralized and self-sovereign identities, verify the integrity of the applications according to the secure information on the blockchain, and implement a fully autonomous license management solution by non-fungible tokens (NFT) on the blockchain. We deploy a proof-of-concept implementation of our proposal written in Solidity language on the Ropsten (Ethereum) and RSK .testnets, and evaluate its latency and costs. Our comparison with the related works demonstrates that our proposal ranks atop the related works

کلمات کلیدی:

(App Store, Blockchain, Smart Contract, Software License Management, Decentralized Identifier, Self-Sovereign Identity, Non-Fungible Token (NFT

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