

Scalable Blockchain Solutions for NGOs: Enhancing Financial Transactions and Accountability

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Abstract : Non-Governmental Organizations (NGOs) play a crucial role in addressing societal challenges, relying heavily on financial transactions to fund their impactful initiatives. However, traditional financial systems can be cumbersome and lack transparency, hindering the efficiency and trustworthiness of NGO operations. The Ethereum main-net, while pioneering the decentralized finance landscape, grapples with inherent scalability challenges, restricting its transaction throughput to a range of 15-45 transactions per second (TPS). This limitation poses substantial obstacles for NGOs engaging in swift and dynamic financial transactions critical to their operational efficiency. This research is a comprehensive exploration of the intricacies of these scalability challenges and delves into the design and implementation of a purpose-built blockchain system explicitly crafted to surmount these constraints.

Keywords : non-governmental organizations, decentralized system, zero knowledge Ethereum virtual machine, decentralized application

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