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Rift : A high-performance consensus algorithm for consortium blockchain (Article)

Khan, F. A .^a, Abubakar, A .^a, Mahmoud, M.^b, Al-Khasawneh, M. A .^c, Alarood, A . A .^d

^aDepartment of Computer Science, International Islamic University Malaysia, Malaysia

^bKing Abdulaziz University, Jeddah, Saudi Arabia

^cFaculty of Computer and Information Technology, Al-Madinah International University, Malaysia

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Abstract

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The emergence of Blockchain have revolutionize the decentralization in distributed architecture. The advances in the consensus mechanism techniques and the development of different variants of consensus algorithms gives a huge impact on its progress. These technologies allow to have a distributed peer-to-peer network in which each external entity can be able to interact with other entities without any trusted intermediary in a verifiable manner. The existing consensus algorithms are mostly concerned with public blockchain having focused on public ledgers in general. The consortium blockchain is least focused as compared with other variants of blockchain (public and private) showing the need to address this vacuum. In this paper, we proposed a consensus algorithm named Rift for consortium blockchain which works on the principle of trust mechanism for achieving consensus in a blockchain .The consensus is achieved by distributed nodes in a consortium blockchain which were controlled by consortium members to decentralize the arbitration by voting and trust metrics. In this paper, we elaborate the comprehensive idea of Rift and discuss the working model for this algorithm . We also perform simulation on the proposed algorithm and determine the performance variables to evaluate the effectiveness of Rift . The evaluated results show the improvement in the performance which is the objective requirement for the evaluation. © BEIESP.

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👤 Mahmoud, M.; King Abdulaziz University, Jeddah, Saudi Arabia; email:mahmoud@outlook.my

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