IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Impact Factor: 7.301
Volume 3, Issue 4, April 2023

Framework for Data Trust using Block-Chain Technology and Adaptive Transaction Validation

P. Hari Babu[1], J. Anusha[2], J. Jaya Prakash[3], Ch. Krishna Veni[4], M. Anand[5]
Assistant Professor, Department of Computer Science and Engineering[1]
Under graduate students, Department of Computer Science and Engineering[2,3,4,5]
Raghu Institute of Technology, Dakamarri, Visakhapatnam, A.P. India

Abstract: *Trust is the main barrier preventing widespread data sharing. The lack of transparent infrastructures for implementing data trust prevents many data owners from sharing their data and concerns data users regarding the quality of the shared data. Blockchain technology proposes a distributed and transparent administration by employing multiple parties to maintain consensus on an immutable ledger. This project presents an end-to-end framework for data trust to enhance trustworthy data sharing utilizing blockchain technology. We also suggest an adaptive solution to determine the number of transaction validators based on the computed trust value.*

Keywords: Blockchain, data trust, data sharing, distributed, access control

REFERENCES

[1]. K. O'hara, ``Data trusts: Ethics, architecture and governance for trustworthy data stewardship," Univ. Southampton, Southampton, U.K., Tech. Rep., 2019.
[2]. A. Alsaad, K. O'Hara, and L. Carr, ``Institutional repositories as a data trust infrastructure," in Proc. Companion Publication 10th ACMConf.Web Sci., Jun. 2019, pp. 1_4.
[3]. S. Rouhani and R. Deters, ``Security, performance, and applications of smart contracts: A systematic survey," IEEE Access, vol. 7, pp. 50759_50779, 2019.
[4]. J.-H. Cho, K. Chan, and S. Adali, ``A survey on trust modeling," ACM Comput. Surv., vol. 48, no. 2, pp. 1_40, Nov. 2015. SPECIALUSIS UGDYMAS / SPECIAL EDUCATION 2022 2 (43) 1061.
[5]. Z. Yan and S. Holtmanns, ``Trust modeling and management: From social trust to digital trust," in Computer Security, Privacy, and Politics: Current Issues, Challenges, and Solutions. Hershey, PA, USA: IGI Global, 2008, pp. 290_323.
[6]. S. Stalla-Bourdillon, G. Thuermer, J. Walker, L. Carmichael, and E. Simperl, ``Data protection by design: Building the foundations of trustworthy data sharing," Data Policy, vol. 2, pp. 1_10, Jan. 202