

# Decentralized Video Sharing Platform using Blockchain and IPFS

Aryan Pandey<sup>1</sup>, Deshik Shetty<sup>2</sup>, Sakib Malim<sup>3</sup>, Shakyasinh Bhise<sup>4</sup>, Nita Patil<sup>5</sup>

Students, Department of Information Technology<sup>1,2,3,4</sup>

Faculty, Department of Information Technology<sup>5</sup>

KC College of Engineering, Thane, India

**Abstract:** A decentralized video streaming platform represents a unique way of storing video and sharing it to all. This platform is based on Blockchain Technology. This approach eliminates the need for traditional central servers and intermediaries, instead using a peer-to-peer (P2P) distribution model. In this platform, users directly upload the content through frontend made using NextJS. The uploaded content gets stored in IPFS nodes, and a Content Identifier (CID) is returned. Every content gets unique CID making the platform content duplicity resistance. Smart contracts and blockchain are used to operate all the functionalities of the platform. To make any recent changes in the current system, decentralized community uses smart contract and update it accordingly. The ownership of the content remains to the user who had uploaded by mapping its public address to it. Since all the content is shared and stored using blockchain and IPFS, no group or government agency has right over the content. In short, a decentralized video streaming platform provides a unique way of storing content and sharing it among the people without need of any central governing factor

**Keywords:** Decentralized, Blockchain, IPFS

## REFERENCES

- [1]. U. Marjit and P. Kumar, "Towards a Decentralized and Distributed Framework for Open Educational Resources based on IPFS and Blockchain," 2020 International Conference on Computer Science, Engineering and Applications (ICCSEA), Gunupur, India, 2020, pp. 1-6, doi: 10.1109/ICCSEA49143.2020.9132841.
- [2]. Randhir Kumar, Rakesh Tripathi, Ningrinla Marchang, Gautam Srivastava, Thippa Reddy Gadekallu, Neal N. Xiong, A secured distributed detection system based on IPFS and blockchain for industrial image and video data security, Journal of Parallel and Distributed Computing, Volume 152,2021, Pages 128-143, ISSN 0743-7315.
- [3]. M. S. Hossan, M. L. Khatun, S. Rahman, S. Reno, and M. Ahmed, "Securing Ride-Sharing Service Using IPFS and Hyperledger Based on Private Blockchain," 2021 24th International Conference on Computer and Information Technology (ICCIT), Dhaka, Bangladesh, 2021, pp. 1- 6, doi: 10.1109/ICCIT54785.2021.9689814.
- [4]. Y. Chen, H. Li, K. Li, and J. Zhang, "An improved P2P file system scheme based on IPFS and Blockchain," 2017 IEEE International Conference on Big Data (Big Data), Boston, MA, USA, 2017, pp. 2652- 2657, doi: 10.1109/BigData.2017.8258226.
- [5]. Weijing Li, Zicheng Zhou, Wen Fan, Juan Gao, "Design of Data Sharing Platform Based on Blockchain and IPFS Technology," Wireless Communications and Mobile Computing, vol. 2022, Article ID 3937725, 7 pages, 2022. <https://doi.org/10.1155/2022/3937725>