

SECUREFLOW: AN INCENTIVIZED DECENTRALIZED FILE SHARING ECOSYSTEM WITH SELF-DESTRUCTION AND ANONYMITY

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The project aims to address prevalent issues encountered in centralized data storage systems. These issues include weak security, complex handling of private information, and privacy breaches. Traditional storage systems often suffer from reliance on single points of failure, susceptibility to cyber attacks, and inadequate data management practices. It's crucial to empower users with control over their data, enhance security protocols, and mitigate risks associated with centralized storage. To tackle these challenges, the project integrates blockchain and IPFS (InterPlanetary File System) technologies. Blockchain ensures data stored within the system remains transparent and tamper-resistant due to its immutable nature. IPFS provides efficient and secure data storage, offering a transparent alternative to conventional methods. Metadata management is facilitated through smart contracts deployed on the Ethereum blockchain, leveraging its foundational technology. IPFS functions as a decentralized storage layer, encapsulating the actual file content, with its addresses secured on the blockchain. Blockchain mechanisms prevent unauthorized alterations to stored data, ensuring data integrity. The combination of blockchain and IPFS decentralizes data access, eliminating dependence on a single server and reducing the risk of system failure. The inherent transparency and auditability of blockchain enhance user trust by fostering a clear understanding of exchanged information.