

DeBox: Decentralized File Storage on the Blockchain

Abstract

DeBox is a decentralized file storage platform leveraging blockchain and Web3 technologies to provide users with secure, private, and decentralized file sharing and storage. By utilizing IPFS, Web3 authentication, Lit Protocol encryption, and Irys for distributed storage, DeBox allows users to upload files, set custom access permissions, and securely share files. The native \$DEBOX token is central to the platform, facilitating payments for storage and unlocking governance and rewards. DeBox redefines data privacy and control in the digital age by placing power back in the hands of users.

Introduction

The rise of Web3 technology and decentralized storage solutions has presented an opportunity to rethink data storage and privacy. In traditional systems, users must trust centralized entities with their files and data, creating security risks and potential privacy breaches. DeBox seeks to solve this problem by using a decentralized approach, ensuring that users retain full control over their files. DeBox uses blockchain and IPFS technology to allow secure file storage and sharing, with custom permission settings for private or public access. The \$DEBOX token underpins the platform's economy, enabling seamless payments and incentives for users.

Vision

DeBox envisions a future where every user has full control and ownership over their digital assets without the need for centralized trust. By empowering users with secure, private, and flexible data storage, DeBox aims to become the leading choice for decentralized file storage on the Web3 network.

Technology Stack

IPFS (InterPlanetary File System)

IPFS is a decentralized file storage protocol that uses content-addressed storage and distributed networks. This enables DeBox to store files across the network without relying on centralized servers, enhancing security and scalability.

Web3 Authentication

DeBox integrates Web3 authentication, allowing users to connect directly with their Web3 wallets (such as MetaMask). This eliminates the need for centralized login systems, reducing the risk of unauthorized access and enhancing user privacy.

Lit Protocol

Lit Protocol provides decentralized encryption services, enabling DeBox to offer private file storage with customizable access. Users can choose to share files with specific wallets by designating them as permitted viewers, ensuring that only authorized individuals can access their data.

Irys

Irys is a distributed file storage infrastructure that supports DeBox's mission to provide decentralized and reliable storage. Files uploaded to DeBox are securely stored on the Irys network, enhancing redundancy and data availability.

Features

Decentralized File Storage

DeBox leverages IPFS and Irys for file storage, removing reliance on centralized servers and distributing data across a global network. This increases security, as files are no longer vulnerable to single points of failure.

Secure, Private File Sharing

Using Lit Protocol, DeBox allows users to encrypt their files and define access permissions through wallet addresses. Users can choose to make files public or restrict access to specific Web3 wallets, ensuring private, permission-based file sharing.

Web3 Authentication

With Web3 login, users simply connect their wallets to access DeBox's services. This ensures user data remains private and enables a seamless login experience without passwords.

Token Integration

The \$DEBOX token is used for all payments on the platform, including file upload fees. This native token enables a frictionless experience within the DeBox ecosystem, providing additional benefits such as potential governance voting, rewards, and access to premium services.

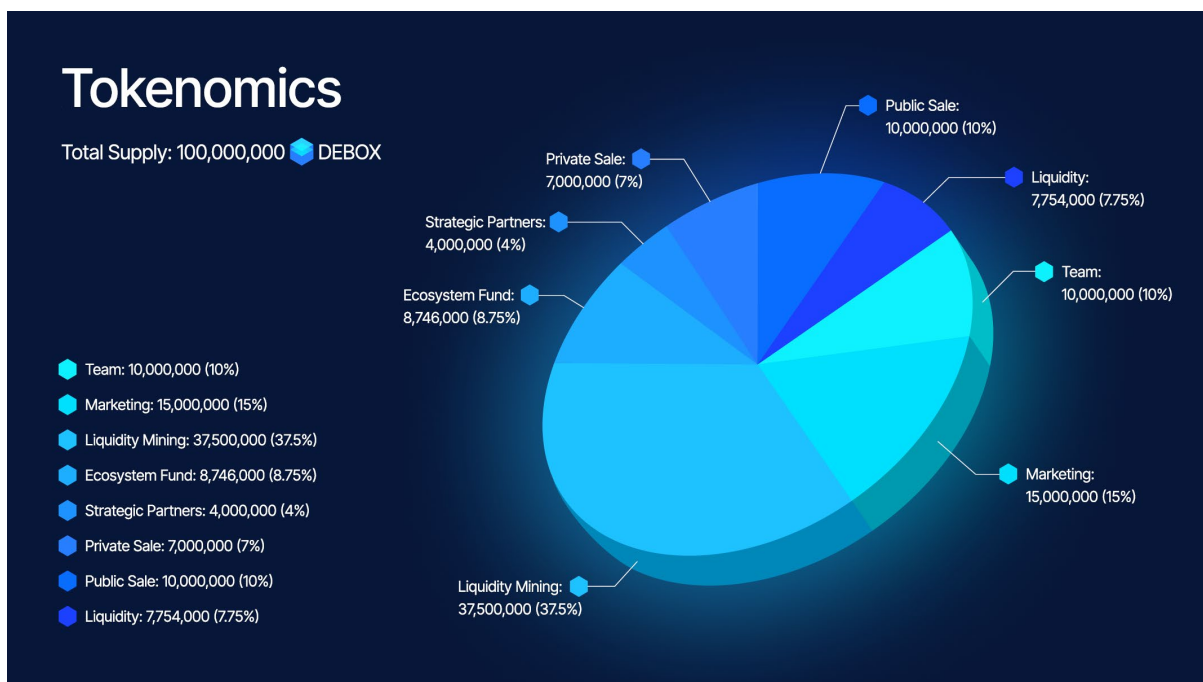
The \$DEBOX Token

Token Utility

- **Platform Access:** Users must hold \$DEBOX tokens to upload files on the platform.
- **Payment for Services:** The \$DEBOX token is used as the sole payment method for storage and uploading, allowing users to access DeBox's secure file management features.
- **Governance:** \$DEBOX holders will have a say in future platform decisions, with plans to transition to a decentralized autonomous organization (DAO) governance structure.
- **Incentives & Rewards:** Users holding or staking \$DEBOX tokens may enjoy benefits like reduced storage fees and additional platform features.

Tokenomics

DeBox aims to foster a sustainable and rewarding ecosystem with \$DEBOX. The platform will release a fixed number of tokens, with allocations for platform development, community rewards, and ecosystem expansion. \$DEBOX tokens can be traded on select exchanges, enabling users to acquire them easily.



Platform Flow

1. **Wallet Connection:** Users connect a Web3 wallet to access the platform. Wallets enable secure, decentralized authentication, bypassing traditional login methods.
2. **File Upload:** Files are uploaded and stored on IPFS, with encryption provided by Lit Protocol.

3. **Access Control:** Users specify access permissions, choosing between public files or restricted access through wallet addresses.
4. **File Management:** Users can view, share, or update files and manage access settings.
5. **Payment with \$DEBOX:** All uploads require \$DEBOX tokens. This system allows seamless integration into DeBox's decentralized ecosystem.

Roadmap

Phase 1: Platform Development & Beta Release

- Develop core functionality for file upload, storage, and access control.
- Launch \$DEBOX token with initial distribution.

Phase 2: Mainnet Launch & \$DEBOX Token Integration

- Integrate \$DEBOX as the primary payment method.
- Expand token utilities, including staking and rewards.

Phase 3: Governance & Community Growth

- Introduce DAO governance for \$DEBOX holders.
- Develop additional features, such as enhanced encryption and expanded file management options.

Phase 4: OS-native application for file storage

- Develop desktop (and mobile) applications with Google Drive-like capabilities to securely share and manage your files and folders on a distributed ledger

Security & Privacy

DeBox is committed to providing a secure and private file storage solution. By using decentralized technologies and Web3 encryption protocols, DeBox ensures that:

- Files are encrypted and securely stored on IPFS and Irys.
- Access is permission-based, giving users control over their data.
- Data is distributed across the network, reducing vulnerability to attacks.

Conclusion

DeBox offers a decentralized, secure, and privacy-focused file storage platform designed to meet the needs of modern users. With the integration of IPFS, Lit Protocol, and Web3 wallet

authentication, DeBox ensures that users have complete control over their files. The \$DEBOX token enables seamless access and incentivizes platform use, fostering a community-driven ecosystem that aligns with the principles of Web3.

This whitepaper outlines DeBox's unique approach to decentralized storage, highlighting the benefits and security of blockchain technology in a user-friendly file management platform. By joining DeBox, users can experience a secure, decentralized solution for file storage and sharing in the Web3 space.