82.com

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White Paper

Table of contents

I. Preface: Traditional Domains, Transformation for a New Era

Traditional domain names, as scarce resources in the digital age, have become a core expression of brand, enterprise, and user identity. However, they have long been controlled by centralized registrars and intermediary platforms, suffering from low transparency, weak transaction liquidity, and security that relies on third-party trust systems. With the rapid development of Web3 and the concept of RWA (Real-World Asset digitization), the on-chain authentication and NFTization of domain names—this "real-world asset"—are emerging as an industry consensus and a new direction for value innovation.

II. Overview

· 82.com is a next-generation blockchain-based RWA + Web3 domain name NFT platform that supports NFT minting, trading, fragmentation, and on-chain financial operations for domain names. All transactions are conducted on-chain, ensuring transparency and instant verifiability.

· Guided by the core concept of RWA (Real World Asset digitization), 82.com maps traditional Web2 domain name assets to the Web3 network, enabling asset ownership authentication and circulation through NFTization. The platform is dedicated to unlocking the digital financial value of domain names, empowering them with true assetization, financialization, and global liquidity, thereby driving the domain industry's upgrade and transformation from Web2.0 to Web3.0.

III. Market Opportunities and Vision

- Web3 domains, serving as gateways to digital identity and resources, are still in the early stages of infrastructure development, presenting immense market potential.
- The concept of RWA (Real-World Asset tokenization) is accelerating the mapping of traditional assets into Web3, offering new value propositions for domain name assets.
- Once domain names are NFTized and deployed on-chain, they gain verifiable, tradable, and composable financial attributes, enabling participation in DeFi protocols such as collateralized lending and liquidity mining, thereby unlocking long-term value.
- Users can leverage domain NFTs to engage in scenarios like asset collateralization, leasing, and layered yield generation, pioneering new pathways for the financialization and assetization of domains.
- **Enterprise Custom API Services**: Providing registrars and brands with API interfaces to integrate on-chain domain NFT issuance modules.
- 82.com is committed to building a bridge connecting Web2 and Web3 assets, driving the transformation of domain assets from traditional collectibles to digital financial assets.
- Exploring **Layer 1 Abstract Chain scaling solutions** to construct an efficient, scalable RWA+Web3 infrastructure, enabling cross-chain interoperability.

IV. Product Structure and Functionality

4.1 Domain Asset Operations

- **Registration & Backordering:** Supports Web2 domain registration workflows

and intelligent backordering mechanisms.

- **Transfer-In:** Allows domains to be transferred from external registrars to 82.com, followed by on-chain minting.
- **Transfer-Out:** Enables NFT domains to be transferred to compatible platforms or returned to the original registrar.
- **Domain Profile Templates:** Users can preset registration templates, supporting batch registration and migration configurations.
- **DNS Configuration Management:** Provides a visual management backend with integration for mainstream resolution services.
- **WHOIS Information Management:** Supports privacy protection and synchronized third-party verification submissions.

4.2 Domain NFT Trading & Financialization

- **Domain NFT Marketplace:** Supports listing/order placement, free trading, and historical record tracking.
- **NFT Fragmentation Mechanism:** Allows single domains (ERC721) to be split into multiple equity fragments (ERC20) for trading, enhancing value liquidity.
- **Domain NFT Collateralized Lending:** Users can stake their domain NFTs to participate in lending markets, unlocking liquidity.
- **DAO Governance Participation:** Holders of specific keyword domains gain platform governance rights, enabling proposal submission and voting.
- **DeFi Mining & Incentives:** Supports injecting domain NFTs into liquidity pools to earn protocol rewards, increasing asset value.

V. Technical Architecture & Platform Contracts

5.1 Platform Technical Framework

- **Mainnet:** Deployed on the Polygon network to ensure high throughput and low gas costs.
- **Abstract Account Mechanism:** Integrated Account Abstraction (AA), supporting Web3 wallet/email/social logins to lower the barrier to Web3 participation.
- **Cross-Chain Bridge:** Compatible with the OKX cross-chain bridge for cross-chain asset transfers.
- **Smart Contract System:** Core contracts built using OpenZeppelin standards, deployed via the UUPS Proxy pattern to enable upgradability, modular permission isolation, and secure version control.
- **SAFE Contract Wallet:** Integrated SAFE multi-signature wallet as the core solution for user asset custody and contract interactions, enhancing security and user experience.
- **RWA On-Chain Anchoring Protocol:** Binds domain registration data to NFTs via smart contracts, establishing an on-chain mapping relationship between Web2 and Web3 assets.
- **Open Interoperability:** The RWA module is compatible with Polygon and future Layer1 expansion chains, enabling cross-platform recognition and access to improve the financial scalability of domains.

5.2 Platform Contracts

Universal Factory Contract

- **Contract Description:** Uses the `CREATE2` opcode to create contracts with predictable addresses, serving as a core component of the secure wallet proxy factory contract.

- **Key Features:**
  - Deploys contracts using the `CREATE2` opcode.
  - Pre-computes contract addresses.
  - Ensures cross-chain address consistency.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/deployFactory
- **Contract Address:** 0x07FDe42BBFA697487Fb984ee588c3a2399103EA0

Safe Wallet Contract

- **Contract Description:** A multi-signature wallet implementation with custom extensions based on Global Safe. Provides secure asset management solutions for organizations and individuals, where all operations require co-signature confirmation from multiple owners.
- **Key Features:**
  - Multi-signature Wallet Creation: Supports customizable owner and signature threshold configurations.
  - Transaction Execution: All fund operations require fulfillment of preset multi-signature rules.
  - Token Management: Automatically handles ERC20/ERC721 token approvals.
  - System Integration: Deeply integrated with configuration management contracts and asset transfer contracts.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/safe
- **Contract Address:** 0x7B79fa2F9CEE3E97B24592b73f91C7Cd72092DD6

Configuration Management Contract

- **Contract Description:** The core configuration management center of the system, responsible for managing configurable parameters and permission controls across the entire system.
- **Key Features:**
  - Token Management: Maintains ERC20/ERC721 token whitelists.
  - Security Proxy Management: Manages Safe wallet proxy whitelists.
  - Fee Configuration: Sets parameters such as transaction fees and withdrawal fees.
  - Signature Management: Manages withdrawal signers and their thresholds.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/setting
- **Contract Address:** 0xc6bC2A778777bd494E23d361b4322999f1E835aB

Asset Transfer Contract

- **Contract Description:** The system's asset transfer proxy contract, responsible for securely executing authorized asset transfers.
- **Key Features:**
  - Token Transfers: Securely handles authorized transfers of ERC20 tokens.
  - NFT Transfers: Securely processes authorized transfers of ERC721 NFTs.
  - Access Control: Only allows whitelisted contracts to call the functions.
  - Operation Auditing: Logs all asset transfer events.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/transfer

- **Contract Address:** 0x412aFEE18E7eFe1C06b717cd6D241AC4C78CE5FF

Domain Name NFT Contract

- **Contract Description:** The core contract of the domain name NFT system, responsible for mapping Web2 domain names to Web3 NFTs.
- **Key Features:**
  - Domain NFT Minting: Maps Web2 domain names to on-chain NFTs.
  - Batch Minting: Supports importing multiple domain names at once.
  - NFT Freezing: Temporarily restricts NFT transfers and other operations.
  - NFT Unfreezing: Restores normal NFT functionality.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/domainNft
- **Contract Address:** 0xB8BaA27704F26c90f247Bb2d17E691aD844531c6

Domain Expense Contract

- **Contract Description:** The core contract of the Domain Expense Management System, primarily responsible for handling domain-related fee collection and fund transfer operations.
- **Key Features:**
  - Domain Renewal Fee Collection: Supports both single and batch collection of domain renewal fees.
  - Refund Processing: Allows refunds to users under specific conditions.
  - Secure Fund Transfers: All fund transfers are executed via the TransferAgent contract.
  - Fund Management: Enables administrators to withdraw collected fees.

- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/domainExpense
- **Contract Address:** 0xCfEBE17DC97E5a0426de1452D4C7b93B742a9081

Asset Withdrawal Contract

- **Contract Description:** A security module for Safe wallets, specifically designed to manage fund withdrawals from Safe wallets to external addresses (EOAs).
- **Key Features:**
  - Multi-signature Withdrawal Verification: All withdrawal operations require compliance with preset multi-signature rules.
  - Token Transfers: Supports secure transfers of ERC20 tokens.
  - NFT Transfers: Supports secure transfers of ERC721 NFTs.
  - Replay Attack Protection: Utilizes a nonce mechanism to prevent transaction replay.
- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/modules
- **Contract Address:** 0x0aE154b6daF1b9DEEF9EE40d9a98926303eD4272

Trading Market Contract

- **Contract Description:** The system's NFT trading market contract, providing comprehensive NFT buying and selling functionalities.
- **Key Features:**
  - Order Management: Supports creation, updating, and cancellation of buy/sell orders.
  - Trade Execution: Facilitates secure exchange of NFTs and tokens.

- Royalty Distribution: Automatically handles creator royalty splits.
- Batch Operations: Supports batch order creation and execution.

- **Repository Address:** https://github.com/82-com/web3/tree/main/contracts/trading
- **Contract Address:** 0xcb16aA546AD4F0799AB9539E273F7D2559C13d51

VI. Economic Model

6.1 Genesis NFT Launch

82.com will release a Genesis NFT series as an exclusive identifier for early platform users and supporters, offering the following benefits:

- **Scarce Serial Numbers:** Limited edition with uniqueness and commemorative value.
- **Ecosystem Priority:** Priority access to future whitelist minting and weighted platform governance rights.
- **Transaction Rewards:** Some Genesis NFTs will be tied to platform revenue airdrops.
- **Staking Privileges:** Can be used as DeFi collateral with higher staking multipliers or interest rewards.

6.2 Platform TOKEN (TBD)

The platform will issue a native token to power the domain asset financial system and governance mechanisms.

Token Utilities:

- **Discounts on transaction fees.**

- Interest payment for domain NFT-backed loans.
- Participation in platform DAO proposals and voting.
- Incentives for ecosystem activities (registration/referrals/liquidity mining).
- Payment for premium services (pre-registration, advanced configurations, privacy protection, etc.).

Issuance Mechanism (Preliminary):

- **Total Supply:** To be announced (designed based on community feedback and market demand).
- **Release Plan:** Inflation/unlock cycles to ensure long-term sustainability.
- **Allocation Breakdown:**
  - Rewards for Genesis users and Genesis NFT holders.
  - Community incentives and promotional rewards.
  - Ecosystem partnerships and funds.
  - Founding team and advisors (with vesting mechanisms).
  - Liquidity pools and DeFi protocol integrations.

6.3 Platform Fees

Transaction Fees:

- Platform transaction fee: 2.5%.
- Domain registration, renewal, transfers, and pre-registration may incur on-chain execution fees (Gas).
- Premium features (e.g., privacy protection, frequent DNS updates) may incur additional functional fees.

Genesis Royalties:

- For the first domain import, a one-time 2.5% Genesis royalty is granted upon transaction.
- For subsequent transactions, the importer receives a lifetime 0.5% Genesis royalty.

Referral Rebate Mechanism:

- Referrers earn a 0.5% rebate on trades. If both buyer and seller are referred, the referrer may earn up to 1%.

VII. Security and Compliance Assurance

Security Design

- Platform smart contracts have undergone **CertiK security audits.**
- Security features such as anti-phishing address whitelisting are implemented in the contracts.
- Management operations adopt multi-signature or decentralized approval processes.

Compliance Mechanism

- Leverages **ICANN registrar API** to verify domain ownership and transfer processes.
- Implements dual authentication of "on-chain verification + registrar snapshot" for domains.
- Supports transfer code invocation mechanism for domain NFT holders, ensuring autonomous control.

Data Transparency and Traceability

- Full on-chain history of all assets is available and searchable via Polygonscan.
- Real-time access to **domain transaction records** for auditing, tracing, and valuation.
- Open platform API for third-party verification and integration.

VIII. Disclaimer and Limitation of Liability

- 82.com is currently in its early testing phase. We cannot guarantee uninterrupted access, error-free operation, or the absolute security of encrypted assets. You assume all associated risks.
- The 82.com protocol is deployed on the Polygon blockchain and integrates Safe (formerly Gnosis Safe) wallet technology, utilizing multi-signature mechanisms to enhance asset security. **All transactions must be initiated and submitted to the on-chain contract by users themselves. We cannot and will not access your assets, nor can we reverse any transactions you have submitted to the contract. We are not responsible for how you use the platform. All your fund transfers and transactions can be verified and traced on the blockchain explorer.**
- The pricing information for domain NFTs displayed on the platform is set by users and is for informational purposes only. It does not constitute an offer, solicitation, investment advice, or any form of trading invitation by 82.com. All transactions are independently initiated by users and matched by smart contracts. The platform does not participate in pricing and is not liable for any transaction outcomes.
- The information provided on this website, including its interfaces and features, is for reference only and does not constitute legal, financial, or

investment advice. 82.com shall not be liable for any direct or indirect losses resulting from the use of such information.

- The use of blockchain technology carries inherent risks, including but not limited to: smart contract vulnerabilities, front-end phishing attacks, private key leaks, hacking, social engineering attacks, extreme volatility in crypto asset prices, and the irreversible nature of transactions. You should ensure you have the necessary knowledge and independently assess the risks involved.

Conclusion

82.com is leading the Web3 transformation of domain name assets. Through synergistic technologies like RWA, NFT, and DID, it breathes new life and value into traditional domains, building them into a future digital asset ecosystem that is decentralized, secure, and highly liquid.