ObiDoge (OBD)

Whitepaper v1.2

Fair Launch - CPU-Mineable - MinotaurX Proof-of-Work

A practical, Bitcoin-style Layer-1 focused on accessible mining and predictable monetary policy.

Document date: 2025-12-26
Website: obidoge.xyz - Ticker: OBD - Consensus: Proof-of-Work

ObiDoge is inspired by Obi, a Golden Doodle - a friendly identity backed by serious, open-source blockchain engineering.

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1. Abstract

ObiDoge (OBD) is a fair-launch, proof-of-work Layer-1 cryptocurrency built on a Bitcoin-style UTXO model. It is designed to keep mining accessible by using MinotaurX, a CPU-optimized proof-of-work algorithm, while maintaining a strict hard cap of 1,000,000,000 OBD and a transparent halving schedule. ObiDoge's goal is to remain simple to run, easy to verify, and practical for long-term operation by home users and community infrastructure operators.

2. Introduction

ObiDoge is intentionally not a token on another chain. It is its own blockchain with its own consensus rules, peer-to-peer network, and full node software. The project emphasizes: (1) a fair launch (no premine, no dev tax), (2) CPU-friendly mining, and (3) predictable monetary policy.

The name “ObiDoge” is inspired by Obi (a golden doodle) - a friendly identity paired with serious, conservative engineering choices.

3. Mission, Principles, and Audience

3.1 Mission

Deliver a simple, fair proof-of-work currency that ordinary users can participate in from day one through CPU mining, while preserving scarcity and decentralization over time.

3.2 Design Principles

• Fair Distribution: all OBD enter circulation through on-chain mining.

• Accessibility: mining should not require specialized hardware.

• Predictability: fixed supply and scheduled halvings.

• Operational Simplicity: conservative protocol choices; avoid unnecessary complexity.

• Community Operation: nodes, pools, explorers, and tools can be run permissionlessly.

3.3 Intended Users

Home CPU miners, hobbyists, small pools, and community operators who want to participate in securing a proof-of-work network without ASIC dominance.

4. About the Project, Team & Foundation Model

ObiDoge is structured as an open, community-driven project. The protocol includes no mandatory foundation allocation and no protocol-level developer tax. Any operational funding (infrastructure, hosting, marketing, bounties) is intended to be voluntary (donations, community sponsorships, or optional off-chain programs).

This design intentionally aligns incentives: the core team participates under the same rules as every miner and holder.

5. Proof-of-Work and MinotaurX

ObiDoge uses MinotaurX proof-of-work as its sole mining algorithm (CPU-only orientation). MinotaurX is a chained algorithm family derived from X16R-style hashing with an added CPU-focused component (YesPower), designed to strongly disadvantage GPU mining and discourage specialized hardware.

5.1 Why CPU-oriented PoW?

CPU-oriented PoW lowers the barrier to entry, encourages broader participation, and supports decentralization by reducing the concentration of hashrate among specialized operators.

5.2 Algorithm Composition (high level)

MinotaurX uses a sequence of hashing functions (a family of 16 X16-style hashes) plus a CPU-oriented YesPower step. This structure is intended to be lightweight yet hostile to GPU optimization.

6. Security Model (ASIC/FPGA considerations)

No proof-of-work algorithm can guarantee permanent resistance to all specialized hardware. FPGAs, by design, can be programmed for many workloads. ObiDoge's strategy is to make specialization economically unattractive by selecting an algorithm that performs well on consumer CPUs and poorly on GPUs/ASIC-style designs.

Network security is provided by: (1) proof-of-work cost to rewrite history, (2) decentralized node validation, (3) economic incentives for honest mining, and (4) conservative consensus changes.

- The chain remains secure as long as honest miners control a majority of hashpower.
- Full nodes validate every rule; invalid blocks are rejected regardless of miner hashpower.
- Decentralized mining reduces correlated failure and censorship risk.

7. Tokenomics I: Mining Emissions & Halving Schedule

OBD has a fixed maximum supply of 1,000,000,000 OBD. New coins are minted only via block subsidies. The block subsidy starts at 475 OBD and halves every 1,051,200 blocks (~2 years at 60 seconds per block).

Era	Blocks	Reward (OBD)	Emission per Era (OBD)	Cumulative (OBD)
1	1,051,200	475.000000	499,320,000	499,320,000
2	1,051,200	237.500000	249,660,000	748,980,000
3	1,051,200	118.750000	124,830,000	873,810,000
4	1,051,200	59.375000	62,415,000	936,225,000
5	1,051,200	29.687500	31,207,500	967,432,500
6	1,051,200	14.843750	15,603,750	983,036,250
7	1,051,200	7.421875	7,801,875	990,838,125
8	1,051,200	3.710938	3,900,938	994,739,062
9	1,051,200	1.855469	1,950,469	996,689,531
10	1,051,200	0.927734	975,234	997,664,766

Because this is a geometric halving series, total minted supply converges to approximately 998,640,000 OBD over time. The remaining supply up to the 1B cap is never issued, preserving a strict maximum.

8. Tokenomics II: Supply Cap Mechanics & Distribution

Distribution is purely mining-based: 0% premine, 0% dev tax, 0% VC allocation. All circulating OBD originates from validated block subsidies and transaction fees earned by miners.

• 100% mined on-chain

• Distribution: 100% Fair-Mineable

[Insert Block Reward vs Halving Era graph here]

(Issuance halves every 1,051,200 blocks. This reduces inflation over time while keeping miner incentives during early network growth. The total supply never exceeds the fixed cap.)

Metric	Value
Maximum Supply	1,000,000,000 OBD
Initial Block Reward	475 OBD
Halving Interval	1,051,200 blocks (~2 years)
Premine / Dev Allocation	0
Genesis Subsidy	0

9. Network Fees & Transaction Cost Model

ObiDoge uses a Bitcoin-style fee market: fees are primarily based on the size of a transaction (bytes / weight), and miners prioritize transactions offering higher fees when blocks are full.

9.1 Transaction Size Estimation (legacy model)

A commonly used approximation for legacy (non-complex) transactions is:

```
S = 148·I + 34·(1 + O) + 10
```

where S is size in bytes, I is number of inputs, and O is number of outputs.

9.2 Fee Estimation

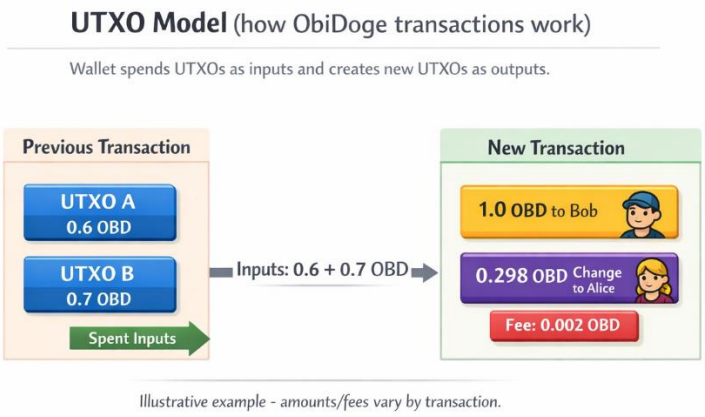
If the recommended fee rate is Fr (coins per kB), then a rough fee estimate is:

```
F = (S / 1000) · Fr
```

Wallet software typically computes fees automatically, but the formulas help users understand how inputs/outputs affect cost.

10. UTXO Model (how ObiDoge transactions work)

ObiDoge tracks value using Unspent Transaction Outputs (UTXOs). A wallet spends one or more UTXOs as inputs and creates new UTXOs as outputs (recipient + change).



Previous Transaction (UTXOs)

UTXO A: 0.6 OBD

UTXO B: 0.7 OBD

spend

New Transaction

Inputs: 0.6 + 0.7

Outputs: 1.0 to Bob, 0.298 change to Alice

Fee: 0.002 OBD (example)

Illustrative example - amounts/fees vary by transaction.

11. Network Parameters & Chain Identity

11.1 Chain Identity

```
CHAIN_NAME = "ObiDoge"

TICKER = "OBD"

MARKETING_NAME = "ObiDoge"

PUBKEY_ADDRESS_PREFIX = 55

SCRIPT_ADDRESS_PREFIX = 117

PRIVATE_KEY_PREFIX = 183

ALGORITHM = "minotaurx"
```

11.2 Ports & Networking

```
P2P_PORT = 29445

RPC_PORT = 29447

MAGIC_BYTES = 0xfa, 0xd0, 0x0b,

0x1e
```

11.3 Block Policy

```
BLOCK_TIME_SECONDS = 60

TARGET_SPACING = 60 TARGET_TIMESPAN = 60 * 60 // 1 hour (for

difficulty adjustment)

DIFFICULTY_ALGO = "DGW"

MAX_BLOCK_SIZE = 2 MB

MAX_BLOCK_WEIGHT = 8 MB

MAX_TX_SIZE = 1 MB
```

12. Mining: Solo, Pool, and Practical Setup

MinotaurX supports CPU miners. Common miners include cpuminer-multi and SRBMiner-Multi (MinotaurX mode).

12.1 Example pool command

```
cpuminer-multi -a minotaurx -o stratum+tcp://POOL:PORT -u OBD_ADDRESS -p x
```

12.2 Solo mining

Solo mining can be performed by running a full node with RPC enabled and mining against localhost. Pools provide steadier payouts for smaller hashrate miners.

Compatible miners include cpuminer-multi (MinotaurX) and SRBMiner-Multi (MinotaurX mode).

13. Infrastructure: Nodes, Seeds, Explorer, Wallets

ObiDoge provides full node software and a Qt wallet. Network connectivity is supported through seed nodes and peer discovery. Public infrastructure typically includes: at least one block explorer, at least one public pool, and a stable seed/DNS entry for bootstrapping.

Infrastructure components commonly include:

• Bootstrap/seed nodes for initial peer discovery

• Public explorers for transparency

• Mining pools for coordinated payouts

• Optional public RPC endpoints for developers

Running a node helps decentralize the network and improves overall resilience.

14. Roadmap (Phases 1-4)

Phase 1 - Core Launch

Release core binaries, wallets, mining software guidance, and bootstrap infrastructure. Publish whitepaper, GitHub repo, release Windows & Linux wallets, deploy block explorer, launch testnet, launch mainnet (“Genesis Day”), enable mining pools, begin community promotion.

Phase 2 - Liquidity & Access

Exchange listings, additional pools, explorer redundancy, community onboarding material. Xeggex listing (free), TradeOgre listing, additional PoW-friendly exchanges.

Phase 3 - Ecosystem Tooling

Developer docs, API libraries, monitoring tools, and community services. ObiDoge meme branding rollout, NFT collection, merch, web wallet, lightweight mobile wallet.

Phase 4 - Advanced Development & Long-Term Sustainability

Scaling & Transaction Efficiency. Research relay optimization, propagation improvements, and optional Layer-2 concepts without compromising decentralization.

Wallet & UX Improvements. Lightweight wallets, faster sync, optional SPV-style clients.

Developer Tooling. Stable RPC docs, SDKs, explorer APIs, pool templates.

Community Grants (Optional). Voluntary, transparent funding mechanisms - no protocol tax or forced block reward diversion.

Network Hardening. Ongoing MinotaurX evaluation, security reviews, stress testing.

Governance Maturity. Improvement proposals and clear upgrade activation practices. Smart-layer extensions (optional), Layer-2 micropayments system (optional), community grants model.

15. Legal Disclaimer

This document is provided for informational purposes only and does not constitute financial, investment, legal, or tax advice. ObiDoge is experimental software. Using or acquiring OBD may involve risk, including the risk of loss. No representation or warranty is made regarding future value, performance, security, or continued development. Users are solely responsible for complying with all applicable laws and regulations in their jurisdiction.

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No guarantees. The ObiDoge project, its contributors, and community members do not guarantee any specific value, performance, security, or continued development.

Limitation of liability. To the maximum extent permitted by law, developers, contributors, and community members disclaim liability for any direct or indirect losses or damages arising from the use of ObiDoge software, the network, or associated services.

By using ObiDoge software or participating in the network, you acknowledge that you understand these risks and accept full responsibility for your actions.

16. Public Links (GitHub/Explorer/Social)

Official links and public addresses should be published on the project website and verified across multiple channels to reduce phishing risk.

- Website: https://obidoge.xyz
- Source Code: https://github.com/vandalism79/obidoge
- Explorer: https://explorer.obidoge.xyz
- Pool: http://cryptopool.site

17. References

- Satoshi Nakamoto - Bitcoin: A Peer-to-Peer Electronic Cash System.
- MinotaurX origin and description as documented in related MinotaurX implementations andcommunity literature.
- UTXO transaction model and fee estimation patterns derived from Bitcoin-style systems.

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