

NITO WHITEPAPER

*A Next-Generation, Ultra-Resilient Proof-of-Work Blockchain*

Nito is an advanced, decentralized blockchain built on the proven SHA-256 algorithm, designed for resilience and true fairness. Emission is transparently scheduled for 200 years. With real-time difficulty adjustment, no premine, and no ICO, Nito is designed as a secure, open platform for mining and digital value transfer.

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**1. Project Motivation**

The blockchain ecosystem is saturated with networks promising decentralization but falling short on the essential trio: fairness, transparency, and enduring security. Nito was conceived to fill this gap, combining:

* + Unrivaled network longevity: coin distribution scheduled over 200 years
  + Proven mining infrastructure: native SHA-256, compatible with the world's most abundant hardware
  + Real-time difficulty retargeting, ensuring mining accessibility and network stability
  + No premine, no ICO - only pure, fair, Proof-of-Work distribution

**2. Nito Blockchain Architecture**

Mining Algorithm: SHA-256 Block Interval: 1 minute Block Weight: 0.8 MB

Genesis Block Creation: Wednesday, August 21, 2024 Genesis Block Hash: Nito/Core Genesis 8-4

Launch Date: Wednesday, August 21, 2024 Each block B\_n is defined as:

B\_n = (h\_{n-1}, M\_n, T\_n, N\_n, TS\_n) where:

* + h\_{n-1}: hash of previous block
  + M\_n: Merkle root of transactions
  + T\_n: target (difficulty)
  + N\_n: nonce
  + TS\_n: timestamp

Address Format Supported:

* + SegWit/Bech32 (nito1...)

(Legacy (1...) and P2sh (3...) addresses are not supported to ensure security, speed, and regulate chain weight.)

**3. Security and Mining: Why PoW with SHA-256?**

* 1. Proof-of-Work vs. Proof-of-Stake

Proof-of-Work (PoW) maximizes decentralization. Anyone with hardware - CPU, GPU, or ASIC - can participate, democratizing block creation and validation. PoW protects against centralization, as control cannot simply be bought: it must be earned through computation.

In contrast, Proof-of-Stake (PoS) has an inherent 'rich-get-richer' dynamic and can ultimately favor wealth concentration and potential collusion among large holders. Nito's choice of PoW is a deliberate commitment to fairness, accessibility, and robust network security.

* 1. The Science and Strength of SHA-256

SHA-256, developed by the NSA, is the backbone of Bitcoin and many other robust digital networks. It is mathematically defined as:

SHA256(M) = H

Where M is the message and H the resulting 256-bit hash. The design properties include:

* Preimage resistance: infeasible to reconstruct M from H
* Collision resistance: infeasible to find M1 != M2 such that SHA256(M1) = SHA256(M2)
* Avalanche effect: a single-bit change in input yields a radically different output

This algorithm's hardware compatibility and mining ecosystem make it the premier choice for security, accessibility, and long-term decentralization.

**4. Block Reward, Distribution & Economic Model**

Total Supply: 1,154,217,600 NITO

Smallest Unit: 1 Nitoshi = 0.00000001 NITO

**Block Reward Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Years** | **Reward/Block** | **Blocks/Year** | **Total Per Period** |
| 1 | 512 | 525,600 | 269,107,200 |
| 2 | 256 | 525,600 | 134,553,600 |
| 3 | 128 | 525,600 | 67,276,800 |
| 4-10 | 64 | 525,600 | 235,468,800 (total) |
| 11-20 | 32 | 525,600 | 168,192,000 (total) |
| 21-50 | 8 | 525,600 | 121,939,200 (total) |
| 51-200 | 2 | 525,600 | 157,680,000 (total) |

(See table below)

Distribution Duration: 200 years Block reward for year y =

512 NITO if y=1

256 NITO if y=2

128 NITO if y=3

64 NITO if 4 <= y <= 10

32 NITO if 11 <= y <= 20

8 NITO if 21 <= y <= 50

2 NITO if 51 <= y <= 200

Premine: None. 100% of coins are mined.

Difficulty Adjustment: Real-time, per block, using an adaptive formula: D\_{n+1} = D\_n \* (T\_actual / T\_target)

ensuring block times remain consistent despite rapid hashrate changes.

**5. Tokenomics and Network Details**

Ticker Symbol: NITO

Mainnet Port: 8820 (RPC: 8825)

Testnet Port: 8840 (RPC: 8845)

Signet Port: 8860

Regtest Port: 8880

Explorer: https://explorer.nito.network Website: https://nito.network

Smallest Unit: Nitoshi (1 NITO = 100,000,000 Nitoshi)

Transaction Fees: Dynamically calculated and fully awarded to miners, providing continued incentive for block production as block rewards decrease over time.

**6. Governance & Future Adjustments**

Upon completion of the 200-year emission, Nito's block reward drops to zero, and miners are rewarded only by transaction fees. If this model proves unsustainable for security, the protocol allows for community-driven adjustments:

* Potential soft fork: Maintain a 1 NITO/block reward indefinitely, yielding a predictable, moderate inflation of 0.0455% per annum (525,600 NITO/year), balancing lost coins and miner incentives.
* All changes are subject to decentralized community governance and consensus among Nito Core developers.

**7. Roadmap**

2024-2025:

* Mainnet launch
* Community-driven mining start
* Listing on top-tier and community exchanges
* Explorer and lightweight wallets released 2026-2028:
* Integration with leading DEX platforms
* Bridge to other networks
* Layer-2 research and implementation (off-chain scaling) 2029+
* Ongoing improvements, scaling, and integration based on community input and technological evolution

**8. Team & Contact**

Nito is built and maintained by a distributed network of open-source developers, cryptographers, and miners worldwide.

Website: https://nito.network Explorer: https://explorer.nito.network Email: [help@nito.network](mailto:help@nito.network)

X: https://x.com/Nito\_Network

GitHub: https://github.com/orgs/NitoNetwork/repositories Telegram: https://t.me/Nito\_Network

**9. Why Participate & Invest in Nito?**

* Ultra-fair launch: No premine, no VC allocation, only mining
* Longest planned distribution in crypto: 200-year emission, optimal for long-term holders and miners
* Unrivaled security: SHA-256, the most proven cryptographic mining algorithm
* Pro-community governance: All major changes are proposed and voted on by stakeholders
* Compatible with established and new mining hardware: Mine with readily available equipment Nito: Uncompromising Security. Radical Fairness. Designed to Endure.