

Thoreum (THR) — Whitepaper v1.0

Mainnet Launch Date: 1 November 2025

Chain ID: 357

Consensus: Proof-of-Work (Ethash)

Block Time: ~12 seconds

Abstract

Thoreum is a miner-focused, Proof-of-Work (PoW), EVM-compatible Layer-1 blockchain built to restore the original ethos of decentralized computation. Thoreum prioritizes permissionless security, predictable issuance, and practical usability. The network also introduces **Stablecoin Side Layers**—dedicated sidechains where **stablecoins are used as gas**—to reduce friction for mainstream users and to accelerate mass adoption. On these side layers, **80% of transaction fees** accrue to validators and **20%** funds **THR buybacks & support**, reinforcing alignment between utility usage and THR value.

Vision & Principles

- **True Decentralization:** Security emerges from open competition for block production (PoW), not from stake concentration.
 - **Miner-First Economics:** 100% of block rewards go to miners; no perpetual developer cuts.
 - **Ethereum Compatibility:** EVM and standard tooling enable immediate developer productivity.
 - **Predictable Scarcity:** Fixed maximum supply and a transparent emission curve.
 - **Practical Adoption:** Stablecoin side layers make crypto usage intuitive for everyday payments and applications.
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Motivation

After Ethereum's transition to Proof-of-Stake, the PoW ecosystem retained a vast base of miners, hardware manufacturers, and infrastructure providers. Thoreum aims to catalyze this community with a clean, modern PoW L1: predictable issuance, no hidden taxes, and a clear path to end-user utility via side layers where stablecoins serve as gas.

System Architecture

1) Base Layer (PoW L1)

- **Consensus:** Ethash PoW
- **Average Block Time:** ~12s
- **Finality:** Probabilistic (longest chain rule)
- **Execution:** EVM compatible
- **State Model:** Ethereum-style account model
- **Gas & Fees:** Paid in **THR** on the base chain

2) Stablecoin Side Layers

Purpose-built sidechains optimized for payments and consumer dApps:

- **Gas Asset:** Stablecoins (e.g., USD-pegged tokens) are used **as gas** on side layers.
- **Bridging:** Canonical bridges connect the Thoreum base chain to side layers for asset portability.
- **Throughput:** Configurable block times & gas limits to achieve high TPS for real-world usage.
- **Fee Distribution:** 80% to side-layer validators, 20% to THR buyback & support.
- **Developer UX:** EVM-compatible where applicable, with standard RPCs, JSON-RPC methods, and tooling.

3) Security Model

- **Base Layer Security:** Secured by PoW hashpower (Ethash).
 - **Side Layer Security:** Validator sets chosen per side layer (PoA) with verifiable bridges and periodic settlement/checkpointing to the base chain.
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Consensus & Networking

- **Consensus:** Proof-of-Work (Ethash).
 - **Difficulty Adjustment:** Ethereum-style dynamic targeting ~12s block time.
 - **Fork Choice Rule:** Longest/Heaviest chain.
 - **Networking:** DevP2P-inspired; peer discovery via bootnodes; anti-spam heuristics at the node level.
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Token (THR) Utility

- **Gas on Base Layer:** THR is required for transactions and contract execution on the main chain.
 - **Base Pair:** Ecosystem assets are quoted and traded against THR (e.g., XYZ/THR), promoting liquidity depth.
 - **Economic Backbone:** THR aligns miners, developers, users, and validators via buybacks from side-layer activity.
 - **Store of Value:** THR serves as a digital asset designed for long-term value preservation, supported by fixed supply and buyback mechanisms.
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Monetary Policy & Tokenomics

- **Ticker:** THR
- **Max Supply:** 100,000,000 THR
- **Premine:** 5% (5,000,000 THR)
- **Mineable:** 95% (95,000,000 THR)
- **Dev Fee:** None
- **Uncle Block Reward:** None

Emission Schedule (Block-Indexed)

- **Blocks 1 – 100,000:** 10 THR / block
- **100,001 – 200,000:** 8 THR / block
- **200,001 – 300,000:** 6 THR / block
- **300,001 – 400,000:** 4 THR / block
- **400,001 – 500,000:** 2 THR / block
- **500,001 – 1,000,000:** 1 THR / block
- **1,000,001 – 2,000,000:** 0.5 THR / block
- **2,000,001 – 912,000,000:** 0.1 THR / block

Economic Rationale

- **Miner Alignment:** 100% of block rewards go to miners; no continuous rent extraction.
 - **Predictable Scarcity:** Clear schedule, capped supply, and no discretionary minting.
 - **Value Feedback Loop:** Side-layer usage → fee revenue → THR buyback (20% of side-layer fees) → strengthens THR liquidity/price support.
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Stablecoin Side Layers — Design

Goals

1. **Frictionless UX:** Users can pay gas in the units they already hold/understand (stablecoins).
2. **Merchant Readiness:** Low-variance fees in fiat terms, predictable cost basis.
3. **Throughput:** Configuration to support retail payments and consumer apps.

Mechanics

- **Gas:** Paid directly in supported stablecoins (e.g., USDT/USDC variants approved per side layer).
- **Fee Routing:** 80% → validators; 20% → on-chain THR buyback treasury.
- **Bridging & Finality:** Canonical bridges with periodic checkpoints to the base chain.
- **Compliance Toggle:** Per-side-layer allowlists/denylists for assets if required by regional partners.

Developer Experience

- **EVM Tooling:** Remix/Hardhat/Foundry compatible (where the side layer is EVM).
 - **Standards:** ERC-20/721/1155 supported on EVM-side layers; SDKs for non-EVM side layers where applicable.
 - **Oracles:** Pluggable oracle framework; price feeds for stablecoins and THR pairs.
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Reference Parameters

- **Chain ID:** 357
 - **Average Block Time:** ~12s
 - **Target TPS (base layer):** conservative single-digit to low-double-digit range, depending on gas limits
 - **Gas Limit:** Governed by protocol parameters; adjustable via client releases
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Governance

- **Protocol Stewardship:** Thoreum improvement proposals (TIPs) published for community feedback.
 - **Client Governance:** Changes to consensus parameters require multi-client readiness and community signaling before activation.
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Mining Overview

- **Algorithm:** Ethash
 - **Hardware:** GPUs/ASICs compatible with Ethash
 - **Pools:** Open ecosystem; incentives for early pool listings via bounty programs
 - **Configs:** Standard DAG management; recommended drivers and overlocks provided in docs
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Developer Quickstart

1. **Connect:** Use RPC endpoint from official docs; Chain ID 357.
 2. **Deploy:** Standard EVM toolchains (Hardhat/Foundry/Truffle).
 3. **Index:** Use community indexers or run a node with archive/pruning modes as needed.
 4. **Test:** Public testnets & faucets (post-launch) for rapid prototyping.
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Compliance & Risk Disclosure

- **Regulatory:** Thoreum is a decentralized protocol. Regional compliance requirements for exchanges, wallets, and payment use cases may vary.
 - **Market Risk:** THR's price can be volatile. Users should assess risk tolerance before participating.
 - **Technical Risk:** Smart contracts and bridges may contain undiscovered vulnerabilities despite audits.
 - **Operational Risk:** Validator misconfiguration or network partitions may impact side-layer performance.
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Glossary

- **PoW:** Proof-of-Work, consensus secured by computational work.
 - **EVM:** Ethereum Virtual Machine, execution environment for smart contracts.
 - **Side Layer:** An auxiliary chain connected to the base chain, optimized for specific use cases.
 - **Gas:** Fee paid to execute transactions and smart contracts.
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Conclusion

Thoreum is built on a simple promise: **miners secure, builders deploy, users thrive**. By combining a fair PoW base chain with stablecoin-powered side layers, Thoreum forges a practical path to global adoption—without compromising decentralization.

Learn more: <https://thoreum.org>