

Bitreum: Digital Scarcity on Programmable Finance

Vitashi Ishigami
bitreum69@proton.me
www.bitreum.org

Abstract. We describe Bitreum, an Ethereum-based token ecosystem that combines a finite allocation baseline with programmable distribution. Our principal mechanisms are NFT-activated BTE mining and a funded holder-reward model. Our initial allocation assigns 600 million BTE to mining, 280 million to liquidity, 100 million to OTC distribution and 20 million to community rewards and promotion. We plan gradual open-market purchases of another 200 million BTE toward an 800 million BTE mining target. A Classic Miner releases at most 15,000 BTE over 1,250 days; a Premium Miner releases at most 25,000 BTE over 1,000 days. Activation consumes the NFT permanently and establishes a time-based position. We separate allocation, inventory, obligations and actual payments so that a website balance is never substituted for settlement. Our community budget assigns 10 million BTE to Games, 6.9 million to Faucet and 3.1 million to marketing and promotion. We present the release equations, reserve boundaries and verification requirements for this architecture, distinguishing integrated contracts from economic policies that require separate implementation evidence.

1. Introduction

Bitcoin demonstrated how public rules can organize digital scarcity. Ethereum made programmable settlement available to application developers. We use the phrase "Bitcoin. Ethereum. Fused into one." to express our design inspiration, not a merger of either network or a claim to their security proofs. Bitreum is an ERC-20 application token on Ethereum Mainnet. It does not introduce a separate blockchain, consensus algorithm or source of Bitcoin. [1, 2]

Our objective is to make token distribution understandable in terms of quantities, time and funding. A participant should be able to distinguish the ownership of an NFT from an activated mining entitlement, and an accrued entitlement from a completed payment. These distinctions matter because each stage has different conditions and different consequences.

We call the product Bitreum Mining. Its mining metaphor refers to the scheduled release of BTE, not computational work. The participant activates a Miner NFT through a permanent burn; the contract then records a bounded release schedule. Our holder-reward model is separate and depends on the stated tax policy, eligible balances and an independently specified distribution mechanism.

We treat Ethereum records as the settlement layer and our website as an interface for reading state and requesting actions. We describe the system through its economic accounting and transaction boundaries. Our allocation figures are budget baselines rather than assertions of current contract balances, and our release schedules are denominated in BTE rather than guaranteed market value.

2. Token and allocation

Our token is Bitreum, ticker BTE, on Ethereum Mainnet, chain ID 1, with 18 decimals. We use a one-billion-BTE allocation baseline. This baseline describes how we assign the supply across functions; it must be distinguished from circulating supply, wallet concentration, cumulative burns and the amount currently available in an individual contract. Those quantities require state-specific measurements.

Purpose	Share	BTE allocation
Initial BTE Mining Allocation	60%	600,000,000
Uniswap Liquidity	28%	280,000,000
OTC Deals	10%	100,000,000
Community and promotion	2%	20,000,000
Total	100%	1,000,000,000

We subdivide the 20 million BTE community and promotion category as follows. Each amount belongs inside the existing 2% category; none is an additional issuance or a claim against the mining reserve.

Community purpose	BTE	Share of total supply
Games	10,000,000	1.00%
Faucet	6,900,000	0.69%
Marketing and promotion	3,100,000	0.31%
Subtotal	20,000,000	2.00%

$$\begin{aligned} &600,000,000 + 280,000,000 + 100,000,000 + 20,000,000 \\ &= 1,000,000,000 \text{ BTE} \end{aligned}$$

We distinguish four accounting quantities. Allocation is the intended budget for a purpose. Inventory is the BTE actually held for that purpose. An obligation is an accepted entitlement that remains unpaid. A payment is a completed transfer. A nominal allocation alone cannot satisfy a claim, and a transfer between two project contracts does not create a second allocation.

Our mining target is 80% of the supply baseline, or 800 million BTE. Starting from 60%, we plan to gradually buy another 200 million BTE from the open market: 20 percentage points of total supply. These purchases transfer existing tokens; they do not mint new supply or add a fifth initial allocation. The 28% liquidity figure describes the initial allocation, not a guaranteed future pool balance.

The additional 200 million BTE is a planned acquisition, not inventory already held or funding already deposited. We set no fixed purchase schedule, price, funding source or completion date here. Execution depends on available resources and market conditions. We will distinguish completed purchases and mining deposits from the remaining target; accepted positions must still satisfy contract funding checks.

The marketing and promotion budget is 3,100,000 BTE, or 15.5% of the community category. Its approved purpose is project awareness and promotional activity. We do not establish campaign-level splits, vesting dates or recipient allocations in this paper. This budget decision does not by itself move tokens or modify a deployed contract.

3. Bitreum Mining

We use ERC-1155 Miner NFTs to distinguish Classic and Premium entitlements. Token ID 1 represents Classic units and token ID 2 represents Premium units. A quantity of units is not a count of unique artworks. Activating q units consumes q NFTs of the selected tier and establishes the corresponding capped BTE entitlement. [3]

Parameter per NFT	Classic - ID 1	Premium - ID 2
Maximum reward	15,000 BTE	25,000 BTE
Release duration	1,250 days	1,000 days
Duration in seconds	108,000,000	86,400,000
Equivalent daily release	12 BTE	25 BTE
Equivalent hourly release	0.5 BTE	1.041666... BTE
Lifetime activation limit	20,000 units	20,000 units

Our activation sequence begins with ownership of the required NFT units and operator approval for the mining contract. Approval permits the relevant NFT operation; it does not itself create a reward position and is distinct from BTE spending approval. The subsequent activation transaction checks the tier, quantity, lifetime limit and available funding. If accepted, it burns the NFT units permanently and records the position for the originating wallet.

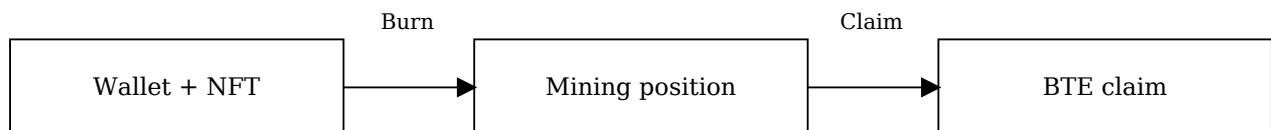


Figure 1. Possession, activation and settlement are distinct states.

The burn cannot be reversed through an unstake operation. A participant can revoke an operator approval after activation, but that revocation does not recover burned NFTs or erase an existing position. Our interface must explain this consequence before the wallet is asked to sign the activation.

We represent a position as (owner, tier, quantity, start, claimed). The tier determines the cap and duration; quantity scales the entitlement; start establishes the time origin; claimed records prior payments. The activation transaction timestamp begins the schedule. Buying an NFT, connecting a wallet or approving an operator does not begin accrual.

Each position has its own release clock. Multiple activations may begin at different times, even within the same wallet. We therefore evaluate and claim positions using their own records rather than a shared website timer. An earlier claim does not reset a position, and the reward cap does not increase when a page is refreshed or another NFT is activated.

We do not fix an NFT marketplace price in this paper. Acquisition cost depends on the applicable listing and transaction conditions. Ethereum gas is separate from BTE release amounts. A mining entitlement expresses a quantity of BTE over time, not a guaranteed yield in ETH, dollars or tokenized stock.

4. Release and claim accounting

Let q be the activated quantity, M the per-unit reward cap, D the duration in seconds, t_0 the activation timestamp and $C(t)$ the cumulative amount already paid from the position. We describe elapsed eligible time by $e(t)$, clipped between zero and the duration. An explanatory continuous model is:

$$\begin{aligned}e(t) &= \min(\max(t - t_0, 0), D) \\V(t) &= q M e(t) / D \\ \text{Claimable}(t) &= \max(V(t) - C(t), 0)\end{aligned}$$

The deployed contract uses integer token units; its exact operation order and rounding determine the smallest-unit result. We use the continuous expression to explain the schedule, not to replace contract arithmetic. Equivalent daily rates do not imply automatic daily transfers. A participant submits a claim and pays gas to receive the eligible amount.

Time after activation	One Classic	One Premium
30 days	360 BTE	750 BTE
365 days	4,380 BTE	9,125 BTE
1,000 days	12,000 BTE	25,000 BTE
1,250 days	15,000 BTE	25,000 BTE

These values are cumulative scheduled amounts before earlier claims. For two Classic units, the 30-day scheduled amount is 720 BTE. If 240 BTE has already been paid from that position, the explanatory remaining claim at that time is 480 BTE. We subtract prior payments from the same position rather than paying its full cumulative schedule repeatedly.

Let U be the unpaid lifetime obligation. For an accepted position, $U = qM - C$. Accrual changes how much of U is currently vested; it does not increase the maximum obligation. A successful payment x decreases U and increases C by the same amount:

$$\begin{aligned}\text{Before payment: } U + C &= qM \\ \text{After payment: } (U - x) + (C + x) &= qM\end{aligned}$$

This conservation relation gives a practical correctness condition. Two claims cannot together exceed the amount released by the later claim time. Repeating a claim cannot reproduce a prior payment. At completion, additional time creates no further entitlement, while earned but unpaid amounts remain governed by the contract claim rules.

The lifetime activation limits reconcile with our 800 million BTE target, rather than the 600 million initial allocation: 20,000 Classic units require at most 300 million BTE and 20,000 Premium units require at most 500 million BTE. If every unit began together, initial equivalent release would be 740,000 BTE per day. Premium release would finish after 1,000 days; Classic would then continue at 240,000 BTE per day for 250 days. This is an illustrative upper-cap scenario, not a forecast of actual adoption or current release.

5. Reserve architecture

We separate distribution inventory from active mining obligations. Our reserve holds BTE intended for mining; the mining contract records positions and their claims. An accepted activation must be backed by sufficient available funding in the mining contract. A large reserve figure displayed elsewhere does not substitute for that activation check.

Component	Accounting role
BTE token	Balances and token transfers.
Miner NFT	Tier-specific units consumed at activation.
Mining contract	Accepted positions, capped obligations and claim payments.
Reserve contract	Inventory and eligible-position replenishment.
User wallet	Authorization and receipt of eligible claims.

The integrated reserve exposes `processNext()`, which processes the next eligible position using a contract-selected fixed amount. The caller does not choose a beneficiary or send BTE principal through this action. The caller submits a transaction and pays gas. Positions that precede reserve deployment are excluded under our recorded integration rules.

Refilling is therefore an explicit settlement event. It does not occur merely because a website is open, and an interface button cannot alter eligibility. A delayed refill can constrain capacity for new activations without changing the release duration of positions already accepted. Our interface reports reserve, mining and pending data separately.

For an accounting model, let B denote BTE held in the mining contract and L its unpaid accepted lifetime obligations. The uncommitted portion is bounded by $B - L$. A new position with maximum obligation qM requires adequate uncommitted backing before acceptance. Deposits and claims have distinct effects:

Deposit d : B becomes $B + d$; L is unchanged.
Accept q units: L increases by qM .
Pay claim x : B becomes $B - x$; L becomes $L - x$.

These expressions are review invariants; exact storage variables and eligibility checks follow the deployment. A reserve transfer changes the location of backing assets without independently increasing supply or creating an entitlement. The same eligible position must not be used to obtain repeated unauthorized funding.

We track observed balances separately from estimates. An unavailable RPC response means unavailable data, not zero BTE. If a refresh fails, the last successful same-account observation may remain visible with a failure state, but stale data must not authorize a write. Changing the wallet or tier requires a fresh state view.

The architecture still depends on contract correctness, token-transfer behavior and Ethereum availability. Verified source code is useful for inspection but is not an independent security audit. We do not infer solvency from a published allocation table; it must be evaluated using actual balances and accepted obligations.

6. Holder rewards and OTC economics

We describe our holder-reward model separately from mining. Mining releases BTE from a capped allocation. Holder rewards are intended to use the designated trading-tax contribution to support tokenized TSLA rewards for eligible BTE balances. One mechanism must not be presented as proof that the other has been implemented.

Tax component	Rate	Stated purpose
Burn	2.3%	Permanent removal from circulation.
Tokenized TSLA rewards	2.3%	Rewards for eligible BTE holders.
Operations	2.3%	Operation, marketing and project growth.
Total	6.9%	Applicable taxable trading volume.

Our stated eligibility threshold is at least 42,069 BTE on Ethereum Mainnet. The exact third-party TSLA token, balance measurement, distribution cadence and recipient mechanism require their own implementation specification. We do not establish an automatic payout schedule in this paper. Our website currently provides no live TSLA claim path.

These tax percentages describe our economic model. Exemptions, collection asset, routing and actual token execution determine transaction-level results. We do not treat the model as an independent audit of the token. Tokenized TSLA is a third-party asset; holding BTE does not itself create direct ownership of Tesla shares through Bitreum.

Our OTC integration distributes BTE against ETH at 500,000 BTE per ETH. Its minimum purchase is 0.1 ETH, its lifetime limit is 5 ETH per wallet and its allocation is 100 million BTE. Purchases remain subject to available inventory and contract validation. Ethereum gas is additional.

$$\begin{aligned}\text{Quoted BTE} &= \text{ETH paid} \times 500,000 \\ 0.1 \text{ ETH} &\text{ corresponds to } 50,000 \text{ BTE.}\end{aligned}$$

The wallet limit is cumulative rather than a separate allowance for every purchase. At the stated rate, 5 ETH corresponds to 2.5 million BTE before applicable token-transfer behavior. The exchange rate is a contract purchase term, not a guarantee that the same tokens can later be sold at that price.

Our deployed OTC contract forwards proceeds to its fixed treasury. Changing a frontend setting cannot redirect that recipient. ETH sale proceeds and BTE inventory remain separate accounting entries; selling BTE does not simultaneously deposit the same quantity into marketing or another reward pool.

We retain the burn, holder-reward and operations components as distinct purposes. The 3.1 million BTE marketing allocation does not change their stated rates. We establish no new fixed percentage of OTC proceeds or recurring operations income for promotion in this revision. Any later policy should identify its source, asset, amount and effect on existing commitments.

7. Community activity and promotion

We reserve 20 million BTE for community activity and promotion. Games and Faucet remain finite participation budgets; marketing and promotion has a separate 3.1 million BTE allocation. Sharing a website and a token does not combine their balances or authorize one function to spend another function's inventory.

7.1 Faucet

Our Faucet budget is 6,900,000 BTE with no planned additional funding. The integrated contract permits a one-time claim of 1,000 BTE per wallet, subject to funding, a shared limit of 10 claims per contract day and a 690-day window. Day boundaries are measured from deployment rather than UTC midnight.

The budget can support at most 6,900 full 1,000-BTE claims before transfer-specific effects. That calculation is not a statement of remaining claims. The current balance, previous claims and time-window state determine availability. An address-level restriction does not prove that every claimant is a different person.

A supplied X or Twitter post URL becomes public transaction data tied to the wallet. The contract checks relevant URL shape and reuse rules; it does not prove authorship, post existence or humanity. Our website uses server-verified Cloudflare Turnstile and a 700 BTE holding check. These website checks do not apply to direct contract calls and do not establish unique-person eligibility. A claim requires gas but no BTE approval or principal payment by the claimant.

7.2 Games

Our Games budget is 10,000,000 BTE with no additional allocation or refill. Fill the Blank uses an existing permissionless reward contract whose original schedule spans 200 periods of 24 hours. Those periods run from the contract start timestamp. The interface cannot restart this clock.

The baseline 50,000 BTE per period is divided into 45,000 score rewards, 4,000 first-viral rewards and 1,000 early-curator rewards. Applicable unused pools carry under contract accounting. The website presents its game entries, but the contract is not exclusive to game-tagged content: qualifying activity submitted through other clients can compete for rewards.

We distinguish a game card's UTC date from the contract reward period. New profiles and other writes require wallet-approved transactions. Duplicate voting does not create additional score; claims concern eligible closed periods and must account for earlier payments. Previously earned rewards remain subject to deployed claim rules after new emission ends.

7.3 Marketing and promotion

Our marketing and promotion allocation is 3,100,000 BTE, or 0.31% of total supply. We intend this budget for awareness and promotional activity. We do not assign campaign amounts, recipients or vesting schedules here. Spending should be supported by a purpose, recipient, amount and transaction record. Future contributions require a separately disclosed budget decision; they are not an automatic claim against mining, Games or Faucet funds.

8. Security, availability and verification

Our security boundaries begin with Ethereum, then the BTE token and each application contract, and finally the wallet and interface. A correct frontend does not establish that every contract transition is safe. Likewise, a correct contract does not prevent a user from signing a transaction presented by an unrelated website. We identify the chain, destination and requested action as part of each integration.

Our transaction path requires explicit wallet connection and uses injected-provider discovery. It does not request a seed phrase, private key or login signature. Writes have review dialogs before wallet approval. The integration checks permitted targets, methods and values, compares runtime code, simulates execution, estimates gas and rechecks chain and account before submission. Failed simulation or estimation does not authorize a fallback send.

We distinguish a signature request from a transaction hash, and a hash from a successful receipt. Receipt verification includes the executed destination, sender, calldata and value. Pending hashes are retained locally so an unresolved submission does not silently become a duplicate action. A rejected wallet request or reverted transaction is not a completed reward payment.

Mining integrity requires that activation consume the correct NFT quantity once, create the correct bounded obligation and authenticate subsequent claims. Batch and single-position operations must agree on quantities and prior payments. Reserve processing must prevent replay. The identity $U + C = qM$ provides an accounting check, but does not replace review of token calls, integer arithmetic or reentrancy behavior.

Public records reveal addresses and may link activity to those addresses. We do not equate a wallet with a unique person or promise confidential participation. Multiple accounts, coordinated voting and repeated low-value activity remain relevant to community reward systems. UI filtering cannot change the permissionless rules of an existing contract.

Availability has separate dependencies. An RPC outage or unavailable website can interrupt access without changing an on-chain entitlement. Recovery requires the correct network, deployment addresses and contract state. Last-known data should retain its observation context; failed refreshes must not manufacture zero balances, successful payments or newly earned rewards.

Our 27 September implementation review passed local transaction-guard, game-logic, game-contract, language, TypeScript and production-build checks. Local contract testing used a simulated chain and mock token. These checks did not spend mainnet funds, establish current balances, or constitute an independent security audit. Independent mobile and desktop browser verification remained incomplete during that review.

We therefore distinguish recorded implementation evidence from release objectives. Further verification should cover actual wallet interactions, small-screen layouts, keyboard access, network changes, insufficient balances, expired windows, repeated claims and delayed receipts. A deployment register identifies a contract; it does not certify every possible state transition or future operational outcome.

9. Conclusion and deployment references

We organize Bitreum around explicit quantities and settlement boundaries. Our initial mining allocation is 600 million BTE. We plan gradual open-market purchases of another 200 million BTE toward the 800 million target that matches the Classic and Premium activation caps. The unpurchased portion is not current backing. Time determines the vested portion of each accepted position, while prior claims determine the unpaid amount. The reserve supports distribution inventory without being counted twice as active funding.

Our holder-reward model, OTC distribution and community budgets have distinct funding requirements. We assign 3.1 million BTE to marketing and promotion within the existing 20 million community category. None of these accounting choices guarantees market demand or price appreciation. Our long-term credibility depends on clear records, usable interfaces and evidence that implementation matches the stated rules.

Deployment register - Ethereum Mainnet, chain ID 1

Component	Recorded deployment; click to inspect
BTE token	0x51dd8687ecc330e337e62acbf931dc251802ffff
Mining	0xed9385f7e4d110ad63d87d0c5f91313349d15cfa
Reserve	0xf70e7d6855cc375da0b8d0a0a3ba9e81b1193529
Miner NFT	0xba167a946caf7e6685647187e55c9c95f3e136db
OTC	0xd4392981fb0de10da7893ebbca43663af521ea96
Faucet	0x5f7c0726f81817434dba0dd0aaf64d21cb0e31eb
Games	0xFcE8CfF4DF4ca2002B5BbDedfd70E7E8A2Aa26C2

References

[1] S. Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," 2008. <https://bitcoin.org/bitcoin.pdf>. Design inspiration; we do not reuse its security proof.

[2] F. Vogelsteller and V. Buterin, "ERC-20: Token Standard," 2015. <https://eips.ethereum.org/EIPS/eip-20>.

[3] W. Radomski et al., "ERC-1155: Multi Token Standard," 2018. <https://eips.ethereum.org/EIPS/eip-1155>.

[4] Our Ethereum deployment and integration records, 24 September 2026; revised initial allocation and open-market acquisition policy, 29 September 2026. Contract links appear above.

Revision 1.7 - 29 September 2026. Correspondence: Vitashi Ishigami, bitreum69@proton.me. Project website: www.bitreum.org.

Disclosure. We are an independent community project and are not affiliated with Bitcoin, Ethereum, Tesla, Ondo Finance or their entities. Tokenized TSLA is a third-party asset. Rewards depend on funding, activity and market conditions. Cryptoassets and tokenized assets carry risk. Our paper describes mechanisms and policies, not guaranteed returns.