

# HAZINACHAIN

## WHITEPAPER

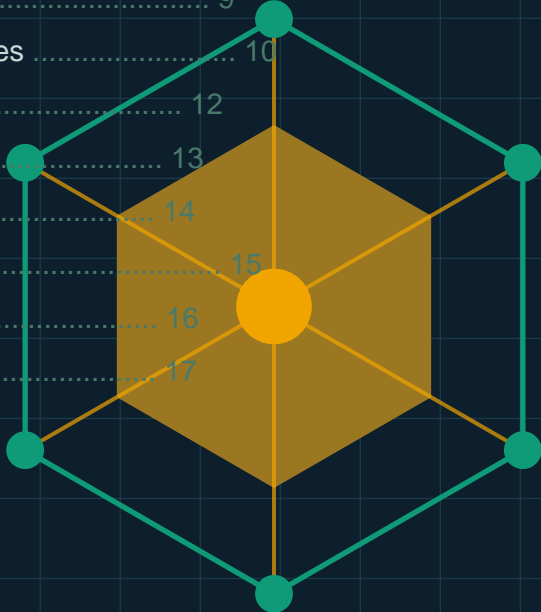
### The Treasury Blockchain

A Cosmos SDK Layer 1 Blockchain for the Hazina DeFi Gaming Ecosystem

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# 1. EXECUTIVE SUMMARY

HazinaChain is a purpose-built Layer 1 blockchain in the Cosmos ecosystem, designed to power the Hazina DeFi gaming platform and its growing suite of decentralized applications. Built on the Cosmos SDK v0.47 with CometBFT consensus, HazinaChain delivers fast finality, low transaction fees, and native support for the HZN token economy.

The chain's native token, HZN (denominated as *ukumi* at the base level), serves as the economic backbone for all platform activities: game settlement, staking rewards, referral network earnings, and DeFi yield distribution. With ~5 second block times and a validator-secured proof-of-stake consensus, HazinaChain provides the infrastructure for real-time, provably fair gaming with on-chain verifiability.

## KEY METRICS AT LAUNCH

Metric	Value
Chain ID	hazinachain-1
SDK Version	Cosmos SDK v0.47.10
Consensus Engine	CometBFT v0.37
Block Time	~5 seconds
Native Token	HZN (ukumi)
Token Decimals	6 (1 HZN = 1,000,000 ukumi)
Coin Type	118 (Cosmos standard)
Initial Supply	10,000,000,000 ukumi (10,000 HZN)
Inflation Rate	~13% annually
Validator Set	Active, expandable

## 2. INTRODUCTION & VISION

### 2.1 The Problem

The intersection of gaming and decentralized finance has long suffered from a fundamental infrastructure mismatch. Existing general-purpose blockchains were not designed for the specific requirements of real-time gaming: instant settlement, provable randomness, micro-transactions at scale, and complex multi-party reward distribution. The result is that most "blockchain games" are either too slow to be genuinely interactive, or sacrifice decentralization for performance.

Furthermore, the existing DeFi landscape lacks meaningful integration with entertainment applications. Yield-generating protocols exist in isolation from the activities users genuinely enjoy — creating an artificial separation between "earning" and "playing" that reduces engagement for both.

### 2.2 The Solution

HazinaChain addresses this gap by providing a purpose-built Layer 1 blockchain optimized for the Hazina gaming ecosystem. Rather than compromising between competing demands, HazinaChain is designed from the ground up to satisfy the technical requirements of provably fair gaming while maintaining the security guarantees and composability of a proper Layer 1 blockchain.

### 2.3 The Name

"Hazina" is a Swahili word meaning **"treasure"** or "treasury." The full phrase *"Hazina ya Kweli"* — "true treasure" — reflects the platform's core philosophy: that real value is created through transparent, verifiable, and community-owned systems. HazinaChain is the infrastructure layer that makes this philosophy technically possible.

### 2.4 Vision Statement

**"To be the premier blockchain infrastructure for decentralized gaming ecosystems — where every transaction is verifiable, every reward is fair, and every player is a stakeholder in the network they participate in."**

# 3. TECHNICAL ARCHITECTURE

## 3.1 Cosmos SDK Foundation

HazinaChain is built on Cosmos SDK v0.47.10, one of the most battle-tested blockchain development frameworks in the industry. The Cosmos SDK provides a modular architecture where each functional component — staking, governance, token distribution, IBC — is implemented as a standalone module that can be composed and customized independently.

### Core Modules Deployed:

- **x/bank** — Token transfers, supply management, denomination metadata
- **x/staking** — Validator delegation, unbonding, slashing parameters
- **x/distribution** — Block reward distribution to validators and delegators
- **x/gov** — On-chain governance proposals and voting
- **x/mint** — HZN token inflation and minting schedule
- **x/slashing** — Validator accountability and penalty enforcement
- **x/crisis** — Invariant checking and emergency halt mechanisms
- **x/genutil** — Genesis transaction validation and collection

## 3.2 CometBFT Consensus

HazinaChain uses CometBFT v0.37 (formerly Tendermint) as its consensus engine. CometBFT implements a Byzantine Fault Tolerant (BFT) consensus algorithm that provides instant finality — once a block is committed, it is irreversible without a coordinated attack by more than 1/3 of the total staked power.

### Consensus Properties:

Property	Guarantee
Safety	No two honest nodes commit different blocks at the same height
Liveness	The network continues producing blocks as long as 2/3+ validators are online
Finality	Instant — committed blocks require no further confirmation
Block Time	~5 seconds under normal network conditions
Fault Tolerance	Byzantine fault tolerant up to 1/3 of total voting power

## 3.3 Network Endpoints

Endpoint	URL	Purpose
RPC (Tendermint)	<a href="https://rpc.hazinachain.com">https://rpc.hazinachain.com</a>	Block data, tx broadcast, node status

REST API	<a href="https://api.hazinachain.com">https://api.hazinachain.com</a>	Cosmos SDK REST endpoints, swagger compatible
Block Explorer	<a href="https://explorer.hazinachain.com">https://explorer.hazinachain.com</a>	Visual block and transaction browser
Faucet	<a href="https://faucet.hazinachain.com">https://faucet.hazinachain.com</a>	Testnet HZN token distribution

## 4. HZN TOKEN ECONOMY

### 4.1 Token Overview

The HZN token is the native currency of HazinaChain. It serves as the fundamental unit of account for all economic activity on the chain, from gas fees to staking rewards to gaming payouts. HZN is denominated at the smart contract and user level, while the base unit *ukumi* (1 HZN = 1,000,000 ukumi) is used for precise on-chain accounting.

### 4.2 Token Utility

#### ■ Gas Fees

All transactions on HazinaChain require HZN for gas payment, creating constant demand from all ecosystem participants.

#### ■ Staking

Validators and delegators stake HZN to secure the network and earn block rewards proportional to their staked amount.

#### ■ Gaming

The Hazina platform uses HZN as its primary currency for bets, payouts, jackpot pools, and tournament buy-ins.

#### ■ Referrals

The 4-level MLM referral network distributes 10% of all bets across four levels of referrers in real-time HZN payments.

#### ■ DeFi Staking

16% of all platform revenue is distributed to HZN stakers in the Hazina DeFi pool, proportional to their staked principal.

#### ■ Governance

HZN holders participate in on-chain governance proposals for protocol parameters, upgrades, and treasury allocation.

### 4.3 Token Distribution Flow

Every bet placed on the Hazina platform triggers an automatic multi-party distribution of the wagered HZN:

Recipient	Percentage	Description
Winner Payout	70%	Returned to the winning player
Staker Pool	16%	Distributed to DeFi stakers daily

Referral Network	10%	Split across 4 referral levels (4/3/2/1%)
Platform Operations	4%	Infrastructure, development, liquidity

## 4.4 Inflation & Minting

HazinaChain operates with a dynamic inflation model inherited from the Cosmos SDK mint module. The current inflation rate is approximately 13% annually, with the following parameters:

Parameter	Value
Annual Inflation	~13%
Inflation Max	20%
Inflation Min	7%
Goal Bonded Ratio	67%
Blocks Per Year	6,311,520
Mint Denom	ukumi

# 5. CONSENSUS & SECURITY

## 5.1 Proof of Stake Security Model

HazinaChain uses Delegated Proof of Stake (DPoS) with a slashing mechanism to align validator incentives with honest network operation. Validators must bond HZN as collateral, which is subject to slashing (partial confiscation) if they misbehave — specifically for double-signing or excessive downtime.

## 5.2 Slashing Parameters

Infraction	Slash Amount	Jail Duration
Double Signing	5%	Permanent (tombstoned)
Downtime	0.01%	600 seconds
Min Signed Per Window	50%	N/A
Signed Blocks Window	100 blocks	N/A

## 5.3 Provably Fair Gaming Security

The integration between HazinaChain and the Hazina gaming platform introduces a novel security requirement: game outcomes must be verifiably random and tamper-proof. This is achieved through a commit-reveal scheme using on-chain block hashes as the source of randomness:

$$\text{Final Result} = \text{HMAC-SHA256}(\text{serverSeed} + \text{blockHash} + \text{clientSeed}) \% 100$$

This scheme ensures that neither the platform nor the player can predict or manipulate outcomes in advance. The server seed is committed before the bet, the block hash is unpredictable, and the client seed is player-generated — making the outcome cryptographically fair and independently verifiable.

## 6. ECOSYSTEM & USE CASES

### 6.1 Hazina Gaming Platform (hazina.live)

The primary consumer application on HazinaChain is the Hazina DeFi gaming platform, accessible at hazina.live. It currently features six provably fair games, a 4-level referral network, DeFi staking pools, and an HZN treasury management system.

- **Penalty Shoot** — Pick a corner zone. Goalkeeper dives randomly. Top corners pay 2.10x.
- **Coin Flip** — Pure 50/50 outcome. 1.95x payout with instant result.
- **Hash Dice** — Set threshold from 1-95. Up to 97x multiplier. On-chain seeded.
- **Prediction Market** — Predict price movements on crypto, sports, forex, politics.
- **Scratch Card** — Instant reveal scratch tickets. Match 3 symbols. Up to 10x jackpot.
- **World Cup Bracket** — Back a team to win the tournament. Prize pool split among winners.

### 6.2 Referral Network Architecture

HazinaChain's referral network operates as a 4-level multi-level marketing structure that distributes 10% of every bet across the referral tree in real-time HZN payments:

Level	Relationship	Earning %	Trigger
L1	Direct referral	4%	Every bet by direct referral
L2	Referral of referral	3%	Every bet by L2 member
L3	Extended network	2%	Every bet by L3 member
L4	Deep network	1%	Every bet by L4 member

# 7. VALIDATOR PROGRAM

Validators are the backbone of HazinaChain's security model. They are responsible for proposing and committing new blocks, participating in consensus, and maintaining full nodes with high uptime. In exchange, they receive a commission on staking rewards earned by their delegators.

## 7.1 Requirements

- Minimum self-delegation: 1 HZN (1,000,000 ukumi)
- Dedicated server with minimum 2 vCPU, 4GB RAM, 80GB SSD
- Minimum 99% uptime commitment
- Must run the official hazinad binary
- Must maintain up-to-date software version
- Must participate in governance votes

## 7.2 Rewards

Validators earn rewards from two sources: block rewards (from HZN inflation) and transaction fees. These are distributed proportionally to their total delegated stake (self-delegation + external delegations). Validators retain a commission percentage (configurable, default 10%) from delegator rewards.

## 8. GOVERNANCE

HazinaChain implements on-chain governance through the Cosmos SDK gov module. HZN holders can submit proposals, deposit tokens to activate voting, and vote on proposed changes to chain parameters, software upgrades, and treasury spending.

### Governance Parameters:

Parameter	Value
Min Deposit	10,000,000 ukumi (10 HZN)
Max Deposit Period	172,800 seconds (2 days)
Voting Period	172,800 seconds (2 days)
Quorum	33.4%
Pass Threshold	50%
Veto Threshold	33.4%

## 9. ROADMAP

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### ✓ Phase 1 Genesis & Launch [COMPLETE]

- Chain initialization and genesis block
- SSL certificates and domain setup
- Block explorer deployment
- Token faucet
- RPC and REST API endpoints
- Validator setup

### ■ Phase 2 Ecosystem Integration [ACTIVE]

- Hazina.live platform integration with on-chain HZN
- Real-time bet settlement on-chain
- Referral reward distribution via blockchain
- DeFi staking pool contracts

### ■ Phase 3 Validator Expansion [UPCOMING]

- Open validator application program
- Governance activation
- Community delegation campaigns
- Multi-validator block production

### ■ Phase 4 IBC & Cross-Chain [PLANNED]

- IBC protocol activation
- Osmosis DEX liquidity pool
- Cross-chain HZN transfers
- Cosmos ecosystem integration

### ■ Phase 5 Smart Contracts [PLANNED]

- CosmWasm module integration
- Permissionless dApp deployment
- NFT standard implementation
- Developer SDK release

## ■ Phase 6 Token Launch [VISION]

- Public HZN token sale
- CEX exchange listings
- Full validator decentralization
- DAO treasury governance

# 10. TEAM & COMMUNITY

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HazinaChain is developed and maintained by the core team behind the Hazina DeFi gaming platform. The team brings expertise in blockchain infrastructure, game design, DeFi protocol engineering, and community growth.

The project is open to community participation through the validator program, governance participation, and ecosystem development. Developers building on HazinaChain have access to full Cosmos SDK tooling, public endpoints, and developer documentation.

## Contact & Community:

Website: <https://hazinachain.com>

Platform: <https://hazina.live>

Explorer: <https://explorer.hazinachain.com>

Email: [support@hazina.live](mailto:support@hazina.live)

RPC: <https://rpc.hazinachain.com>

API: <https://api.hazinachain.com>

# 11. RISK FACTORS

**DISCLAIMER:** This whitepaper is for informational purposes only and does not constitute financial advice, investment advice, or an offer to sell securities. Participation in the HazinaChain ecosystem involves significant risk.

## Technical Risk

Blockchain software may contain bugs or vulnerabilities. Smart contracts and protocol modules are subject to exploits. The team actively audits and updates code.

## Regulatory Risk

The regulatory environment for blockchain and crypto gaming is evolving. Certain jurisdictions may restrict or prohibit participation.

## Market Risk

The value of HZN tokens may fluctuate significantly. There is no guarantee of token value or liquidity.

## Gaming Risk

All games involve probability and chance. Players may lose their staked tokens. Only participate with funds you can afford to lose. Must be 18+.

## Validator Risk

Slashing events may result in partial loss of staked HZN for validators and delegators if validators misbehave.

## Network Risk

As a new blockchain, HazinaChain has a smaller validator set than established networks, which may affect censorship resistance.

## 12. CONCLUSION

HazinaChain represents a new paradigm in blockchain gaming infrastructure — a purpose-built Layer 1 that eliminates the compromises forced by using general-purpose chains for specialized applications.

By combining the proven security of Cosmos SDK and CometBFT consensus with deep integration into the Hazina gaming ecosystem, HazinaChain creates a virtuous cycle: more gameplay generates more fees, which rewards more stakers, which attracts more validators, which makes the network more secure and reliable for more gameplay.

The roadmap ahead is ambitious — IBC interoperability, smart contracts, public token launch — but each phase builds logically on the last, with the existing live mainnet as proof that the foundation is solid.

**"Hazina ya Kweli" — True Treasure.  
Your Treasury. Your Game. Your Chain.**

*For more information visit [hazinachain.com](https://hazinachain.com) or contact [support@hazina.live](mailto:support@hazina.live)*