Chiliz Chain

Litepaper v1.1

Introduction | Overview, Year–1 Features/ Utilities & Developer Focus

Abstract

Chiliz Chain is an EVM–compatible Layer–1 protocol built in partnership with ANKR. It serves as the foundation for creating a blockchain–based ecosystem for sports and entertainment industries with fan experiences and B2B/B2C tools.

The core differentiation for Chiliz Chain lies in its operational structure and development focus. It aims to cater to the specific needs of IP rights holders in the sports and entertainment industries who want to engage in blockchain development.

This includes:

–   Technical and operational safeguards against IP rights and use–case infringement

–   Governance–level curation of developer whitelisting based on:
    - Relevance to the protocol's ecosystem focus
    - Reputational hazard, use–case and regulatory safety of proposed projects

Development & Launch Motivation

The mission of Chiliz Chain has always been to become an open foundation for sports and entertainment industries. Socios.com was built on top of the first iteration of Chiliz Chain (Chiliz Legacy Chain) to provide proof-of-concept and validate two key points:

– On-chain engagement products focusing on sports and/or entertainment IP have the potential to thrive, given the right operational buy-in from partner organizations and supporting business/2nd layer tech infrastructure, along with interest from crypto enthusiasts and mainstream fans.

– Future iterations of Chiliz Chain, its native CHZ token, and surrounding business/technical infrastructure could support an ecosystem of global-level IP at scale.

With the rollout of the second iteration of Chiliz Chain, the goal is now to create an open ecosystem. Whitelisted third-party developers will be able to build external utilities for Fan Tokens in parallel to Socios.com, to mint new digital assets of their own, and to build completely new platforms on-chain

An open chain validator & delegator network will empower fans and sports/entertainment organizations to directly participate in governance and collect rewards from actively securing the Chiliz Chain ecosystem

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Ecosystem Advantage

Chiliz Chain leverages an existing network of tokenized partnerships and utilizable assets via the Socios.com ecosystem:

– Incoming developers for whom it is relevant are provisioned with a concrete Chiliz Chain-native asset class – Fan Tokens – to anchor development around from launch.

– Built-in reach from Socios.com's 1.8+ million existing user wallets will help seed adoption as well. These wallets are set for opening to third-party integration

Chain Features & Programs Coming in 2023*

- Chain staking utility for all CHZ holders
- Royalty security/ safeguarding via multi-chain NFT royalty standard
- Wrapped stablecoin support
- Multi-chain digital asset bridging
- In-house Smart Contract asset bridging via Chiliz Bridge
  - Chiliz Chain (CC2) <> Ethereum bridge for CHZ tokens
  - Chiliz Legacy Chain (CC1) <> Chiliz Chain (CC2) bridging for Fan Tokens
  - BNB Chain <> Chiliz Chain (CC2) bridging for Fan Tokens
- Bug bounty program
- Crypto ecosystem-wide chain integration and support by exchanges, wallets & NFT marketplaces

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Developer & Client Utilities Coming in 2023*:

- LiveNFT™ to allow standardized real-time metadata augmentation (eventual on-chain operation)
- GameUsed Authentication-as-a-Service
- Direct CHZ staking features
- Native 'PepperSwap' general-asset DeFi exchange
- Fan Token-centric DeFi swapping portal
- Turnkey API library & API toolkits for Socios.com wallet connection to 3rd parties
- Turnkey API library & API toolkits for 3rd party wallet connection to Socios.com utilities (fan voting, staking etc.)
- 'Plug & play' loyalty & rewards access solutions for Fan Token Holders in external environments

*Chiliz Chain developer & client utilities listed as planned for introduction in 2023 may be delayed, changed or canceled based on ecosystem needs, development bandwidth etc.

Requests for Development

- Ticketing solutions & authorized secondary markets for ticketing
- Chiliz Chain-native NFT marketplaces
- On-chain bidding & anti-fraud/ cheating mechanisms for player transfer transparency
- Public, encrypted email-as-address functionality via email mapping
- Proof of Attendance Protocol (POAP) tools
- Securitized fan-centric investment tools/ platforms from 3rd parties (independent of the Socios.com platform and Fan Tokens)
- Supply chain ledger solutions for sports merchandise & memorabilia
- On-chain athlete contract certification tools
- On-chain RNG oracles & event results oracles for sportsbook, fantasy gaming, NFT-centric sports game offerings & organization-level record keeping
- Soulbound tokens

Documentation Library:

GitHub Repository:
github.com/chiliz-chain/v2

Protocol Documentation:
docs.chiliz.com

Certik Audit History:
www.certik.com/projects/chiliz

Chain Specifications | High Level

Maximum TPS	~400
Standard GAS Fee	2500 GWEI
Network Token	CHZ
EVM Compatibility	**Chiliz Chain is a fully EVM–compatible blockchain.** EVM compatibility refers to the ability for a blockchain network or smart contract system to interact with and execute code written for the Ethereum blockchain's virtual machine. Solidity code written for Ethereum will be executable on Chiliz Chain, enabling easy interoperability and reuse of existing code written for Smart Contracts on Ethereum on Chiliz.
Node Structure	**The Chiliz network will require 11 active validators from genesis (the Starting XI)** with at minimum 4 validator nodes on stand-by in case of an eventuality where 1 or more active validators goes offline or is jailed. Starting XI validator selection is a decentralized/ meritocratic process wherein users with the highest volume of CHZ staked above the validation requirement baseline are designated as the active validators of each node. Chiliz is able to scale up active validator node volume at operator discretion post-genesis.
Staking Requirements for Validators	– Network whitelisting & cooptation via governance – Minimum 10,000,000 CHZ active stake

Chain Specifications | High Level

Minimum Delegator Stake	**– Minimum 0.01 CHZ active stake** **– No maximum CHZ active stake**
Smart Contract Deployment	**Initially subject to governance–based deployer whitelisting** to protect network & ecosystem from deployment of malicious Smart Contracts (scams, IP infringing assets, hazardous asset use cases, imitation tokens, etc.) by bad actors. Smart Contract deployment **may not remain subject to whitelisting in perpetuity** as the network remains open to adapting governance rulesets based on changing demands from the ecosystem and partners.
Energy Efficiency	**A limit of 11 active node operators at genesis minimizes computational energy requirements** to secure the blockchain and validate blocks on Chiliz Chain to levels under or at–competition with current 'green friendly' chain operators. Energy consumption forecasts will be made available shortly after launch and real–time energy usage will be made public adequate tracking tools to do so are in place.
GAS Fee Distribution	**20% of Total Gas Fees Accrued remain with Chiliz reinvested** into ecosystem development via gas generation incentives, development grants and protocol enhancements to the Chiliz network. – Chiliz–collected gas fee usage will be publicly auditable on–chain **80% of Total Gas Fees Accrued remain with node validators** and split with delegators at the validators' discretion.

Chain Specifications | High Level

Governance Proposal Centralisation	**At genesis, governance proposals can only be created and deployed by network operator (Chiliz) addresses,** and not by any node validator. However – once a governance proposal is deployed by a network operator address – the active node validator network is empowered to vote on each deployed proposal autonomously and without interference from Chiliz. Governance proposal origination **may not remain limited to network operator addresses** in perpetuity as the network remains open to adapting governance rulesets based on changing demands from the ecosystem and partners.
Epoch Time	**1 Epoch on Chiliz Chain is equal to 1 day** (an exact 24 hour period)