



ADI CHAIN WHITEPAPER



ADI's Mission & Vision

If you're reading this, you're likely familiar with the profound impact blockchain technology has made on the global financial industry over the past decade - as well as blockchain's immense potential to serve as the rails for the future of finance.

But even the blockchain industry's most ardent proponents (including ADI Foundation) can acknowledge that the blockchain revolution is not yet truly global in scope. Most blockchain activity - and the corresponding benefits it can provide governments, businesses and citizens - is still concentrated in relatively few geographic markets.

While ADI Chain was developed to co-write the next chapter of financial history, much of the world has missed out on the last couple. Today, approximately one quarter of the world's population remains unbanked and billions more are completely disconnected from the digital transformations that developed markets have experienced since the advent of the internet.

The ADI Foundation's goal is to play a major role in leveling this playing field by bringing one billion people onchain in emerging markets by 2030 with the launch of ADI Chain.

ADI Chain is a modular, highly performant, customizable, and cost effective Layer2 (L2) blockchain secured by Ethereum. Built on zkSync's open, modular stack, ADI Chain executes transactions off chain, provides verification via zero knowledge validity proofs, and finalizes on Ethereum, combining high throughput with L1-grade security.

ADI Chain is EVM-compatible, allowing developers to deploy Ethereum smart contracts and dApps with minimal modifications, while benefiting from dramatically lower fees and faster finality.

ADI Chain is designed to empower institutions and governments to leverage blockchain-enabled innovations — spanning stablecoins, cross-border remittances, decentralized financial networks, tokenized real-world assets (RWAs), digital payments, healthcare data, and logistics — to unlock new forms of trust, efficiency, and inclusion that benefit citizens and societies

And, unlike the vast majority of market entrants, ADI Chain is built to provide L3 chains with built-in compliance capabilities to ensure networks can be fully compliant with the laws and regulations governing their operations.



Governments and institutions need *Different Ideas*

Meet the digital upgrade for legacy systems

Legacy infrastructure - from government services to banking to digital identity - remains fragmented and opaque. This is especially true across many parts of the Middle East, Africa and Asia - regions that account for approximately 75% of the world's people.

Services don't connect. Personal data isn't secure. Using money can be as difficult as earning it.

While solving challenges of this scale and complexity will require contributions from all levels of society, government and institutions will play a key role - just like they did paving the road to growth for today's developed economies a century ago.

Yet, governments and institutions have generally shied away from blockchain technology because current systems lack the compliance features needed to govern their nations. ADI Chain was designed specifically to bridge those gaps.

Delivering compliant innovation across the globe

ADI Chain marries innovation and compliance with its capability to build modular Layer 3s (L3) on top of the network. Entities can operate their own compliance-optimized L3 domain, segmented by jurisdiction, sector, or policy, while staying securely connected to the ADI Chain L2. Every project built on ADI Chain will receive the benefits of a transparent, trackable blockchain, economic security from the Ethereum L1 and the flexible compliance features required for its particular use case and jurisdiction.

The long-term vision is an interconnected system of institutional and government L3s, that are connected through the ADI chain to the broader Web3 ecosystem. This should see trillions of dollars move onchain and flow both cross-business and cross-border, in a transparent, trackable and secure way, with same day settlement.

Efficient. Connected. Fully compliant.



Core Components

Development Engine

A modular zkEVM framework, based on the zkSync stack, powers ADI's scalability, security, and Ethereum equivalence.

- Sequencer. Orders and executes transactions, runs in a high-availability setup with hot failover, and uses restricted networking to mitigate spam and denial attacks.
- Prover. Based on Airbender and using STARK to SNARK compression. It is GPU-accelerated and optimized to deliver sub-minute proofs, with the capability of sub-second generation for smaller batches.
- L1 Verifier & Bridge. Ethereum contracts verify submitted batches and update the state root. The Outbox/Inbox mechanism supports secure message execution, enabling near-instant withdrawals after proof acceptance.

zkSync: foundation of the stack

zkSync is a Layer 2 blockchain that uses zero-knowledge proofs to make transactions faster and cheaper, while retaining Ethereum's security. Its open, modular framework powers ADI's scalability, EVM equivalence, and compliance-oriented features.

Onramping Institutions and Governments

ADI Chain provides the infrastructure for institutions to onboard their users and clients and interconnect services across sectors, such as payments, identity, registries, healthcare, energy, and logistics. By using blockchain as a neutral settlement and data layer, institutions can link existing systems, expand across borders, and enforce policy-compliant operations via L3 networks.

Shared Incentives

ADI Chain aligns incentives across institutions, developers, and end users. By batching transactions and compressing proofs, the network lowers the total cost of operations — reducing fees for institutions while passing savings on to citizens and businesses. Connectivity is built in: every participant gains access not only to services within the ADI ecosystem but also to the wider universe of DeFi applications and digital services, creating a seamless bridge between traditional and next-generation markets. And with Layer-3 customization, policymakers and enterprises retain control where they need it most — tailoring rules for specific sectors or jurisdictions while still remaining interoperable with the broader network.



Opportunities for Key Stakeholders

For Builders, ADI Chain offers a low-cost, scalable environment that is fully compatible with Ethereum standards. Developers can use familiar tools such as Hardhat and Foundry to deploy applications quickly, while zk-based proofs ensure fast finality with L1-grade security.

For Institutions, ADI Chain provides compliance-specialized Layer-3 customization. This allows banks, fintechs, and enterprises to build optimized rails for payments, digital identity, tokenization of real-world assets, and secure data registries — all while meeting sector- or jurisdiction-specific requirements.

For Governments, ADI Chain delivers the frameworks required to establish digital asset infrastructure, national registries, and fully auditable program delivery. This creates new ways to drive efficiency, accountability, and transparency in public services.

For Users, ADI Chain enables retail access to compliant, secure, and interoperable financial and data services. Citizens benefit from lower costs, faster access, and inclusion in the digital economy without compromising trust or security.

\$ADI Token Utility

Opportunities for Key Stakeholders

The \$ADI token is the core utility token of the ADI Chain ecosystem, designed to support both Web3-native and enterprise-grade use cases. Its functions are explicitly tied to network operations and ecosystem incentives:

1. Native Gas & Operational Utility

\$ADI is the primary gas token for all transactions on ADI Chain (L2) and its associated L3 domains. All smart contract executions, dApp interactions, and transfers require \$ADI for gas fees. This is enabled by zkStack's Custom Gas Token capability, eliminating the need for ETH management.

2. Medium of Exchange

\$ADI acts as the settlement currency within the ecosystem, facilitating payments between enterprises, developers, validators, and users.

3. Staking & Yield

Token holders can stake \$ADI into a treasury-backed pool to earn predictable, non-inflationary rewards. This model avoids inflationary minting and supports long-term token value preservation.



ADI Chain Infrastructure & Ecosystem Features

While \$ADI powers the network, the broader ADI Chain infrastructure introduces features that enhance utility and adoption:

1. Stablecoin Rail

ADI Chain will serve as the infrastructure for a regulated Dirham-backed stablecoin, developed in collaboration with IHC, First Abu Dhabi Bank, and ADQ. All stablecoin transactions require \$ADI for gas, reinforcing its utility and demand.

2. EVM Compatibility & Interoperability

ADI Chain supports ERC-20 and ERC-721 standards, enabling seamless bridging and composability across Ethereum and other L2/L3 networks.

3. Enterprise & Government L3 Enablement

ADI Chain is designed to support scalable, compliant L3s for use cases such as:

- Digital identity
- Registries
- Healthcare
- Payments
- Logistics

These domains benefit from the security and performance of ADI Chain while leveraging \$ADI for gas and settlement.

ADI Tokenomics Overview

Allocation

Community Fund (35%): Unlocks monthly over 72 months with a 0-month cliff, and 1.37% of tokens are released as a bullet at the cliff.

Treasury Reserves (25%): Unlocks monthly over 108 months with no cliff.

Private Investors (12%): Unlocks monthly over 72 months after a 12-month cliff.

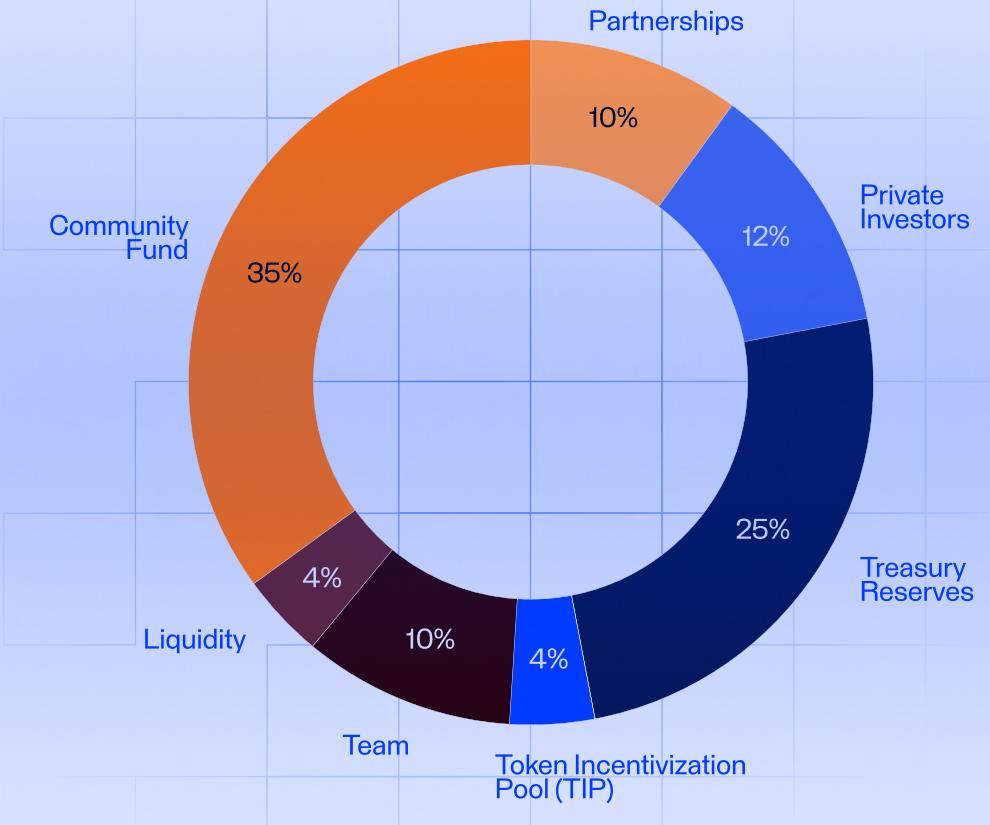
Partnerships (10%): Unlocks monthly over 72 months after a 12-month cliff.

Genesis Supply
999,999,999

Team (10%): Unlocks monthly over 72 months after a 12-month cliff.

Token Incentivization Pool (4%): Fully available immediately. Tokens are planned to be released quarterly during the first year, though timing may vary depending on ADI's strategic initiatives and ecosystem needs.

Liquidity (4%): Fully available immediately.



Governance

At launch, no tokenholder governance is active for the ADI Chain. While the Charter establishes a comprehensive governance framework, this framework remains dormant until formally activated by an Activation Resolution. Activation will occur following the deployment and audit of the relevant governance smart contracts, publication of detailed Governance Specifications, and the filing of updated documents with the ADGM Registrar within the required regulatory window.

FATF and ADGM Travel Rule Compliance

The Foundation provides blockchain infrastructure and does not itself act as a Virtual Asset Service Provider (VASP) as defined by the Financial Action Task Force (FATF) Recommendation 16 (“Travel Rule”) and the Abu Dhabi Global Market (ADGM) regulatory framework.

However, any Layer-3 (L3) operators, partners, or ecosystem participants who provide custodial services, operate exchanges, or act as transfer agents on the ADI Chain are required to comply with the FATF Travel Rule and all relevant ADGM regulations. The Foundation may provide technical tools and guidance to support L3 operators in meeting these obligations.



Appendix A — Technical Deep Dive

A1. Rollup Specification (Summary)

ADI Network is a zkRollup: A Layer-2 technology that uses zero-knowledge validity proofs to guarantee the correctness of every state transition. All transactions are executed on ADI L2 and collected into batches. For each batch, a zkProof is generated, demonstrating that the resulting state is valid.

This proof is then submitted to Ethereum L1, where it is verified by a dedicated contract. Only if the proof is valid does Ethereum finalize the new state, which means invalid batches can never be accepted.

A2. Transaction Lifecycle — From ADI to Ethereum Finality

A3. Key Features of the ADI zkRollup Architecture

- **Scalability.** Each ADI L2 instance supports roughly 2,000–10,000 TPS. Where additional throughput or specialization is needed, separate L3 chains can be deployed on top.
- **Gas Fees.** By batching transactions and compressing proofs, the system reduces fees by 90–95% compared with L1 Ethereum. Gas is paid in ADI via the Custom Gas Token model, removing the need to manage ETH separately.
- **ZK Finality & Security.** Soft confirmations by Sequencer. Final settlement on Ethereum once the proof is verified.
- **Ethereum Compatibility & Bridging.** Contracts, tooling, and EVM standards work without modification, ensuring smooth deployment and migration. ADI supports seamless bridging and messaging between L1 and L2, and includes trust-minimized pathways.



A6. Cross - Chain Messaging

A unified bridging portal interface allows users to deposit or withdraw assets between Ethereum (L1), ADI (L2), and specialized L3s. All communication is trust-minimized: messages are proven as part of the ZK proof, ensuring rapid finality when moving data or assets back to L1.

A7. Enterprise Middleware (Hyperledger FireFly)

Middleware is included to simplify integration for enterprises and governments. It auto-generates REST APIs for deployed smart contracts, provides reliable event streaming with guaranteed delivery, and integrates with DID/KYC services.

A8. Modularity & L3 Expansion

The network supports additional L3 chains that applications, technical needs, privacy needs, or jurisdictions can tailor. These L3s inherit ADI L2 security while offering compliance segmentation, higher privacy, or performance tuning. This approach allows governments, enterprises, or sector-specific networks to operate their own domain while remaining part of the ADI ecosystem.

Appendix A — Technical Deep Dive

Explorer

explorer.testnet.adifoundation.ai

Network Token

ADI

RPC

rpc.testnet.adifoundation.ai

Chain ID

36900

Bridge

bridge.testnet.adifoundation.ai

Network name

ADI Testnet

Faucet

faucet.testnet.adifoundation.ai

Sepolia token (used for CGT)

sepolia.etherscan.io

