

# Masa: Building the Leading zk-Data Marketplace and Network

## Our Mission and Vision

Data is the new oil in the AI era. AI is radically changing the world before our eyes at an exponential rate that no one can yet comprehend. As this generation of AI permeates every business and has become more user engagement-focused, the need for high-quality, mass amounts of unbiased and verifiable training data grows exponentially. For too long, the world's most valuable user data has been locked away in proprietary silos and exploited without user consent or fair compensation. It's time for a new data paradigm.

Masa is architecting the internet's new nervous system. We disrupt the big tech data silos, incentivizing consented and verified data exchange between data providers (users & businesses) and data consumers (developers, startups, and enterprises) in a fully privacy-preserved way. We envision a scalable, secure, and resilient global data marketplace where data is private by default, and millions of businesses engage with billions of users in a new data paradigm powered by Masa.

## The Problems We Are Solving

AI is radically changing the world before our eyes at an exponential rate that no one can yet comprehend. By 2030, there will be over \$1-trillion in aggregate value created by companies leveraging AI models, with the largest impacts expected in AI-powered user engagement applications, including generative AI. We foresee a world where AI algorithms will know users better than they know themselves, predicting their needs, desires and offering hyper-personalized experiences. Products, media and social platforms will all dynamically adapt to each user, immersing them in a customized environment designed just for their own interests and engagement.

AI innovation requires high-quality, mass amounts of unbiased and verifiable training data to power their AI models: most valuable of which is user behavioral data that captures real-world human behavior and natural language. Currently, open and permissionless internet-scale user behavioral datasets sufficiently deep for AI model training do not yet exist. This is because:

- **Big Tech Data Silos:** Much of the most valuable user engagement data is locked up in proprietary silos controlled by big tech companies like Google and Meta. Simply put, users' data are locked in Big Tech's walled gardens.

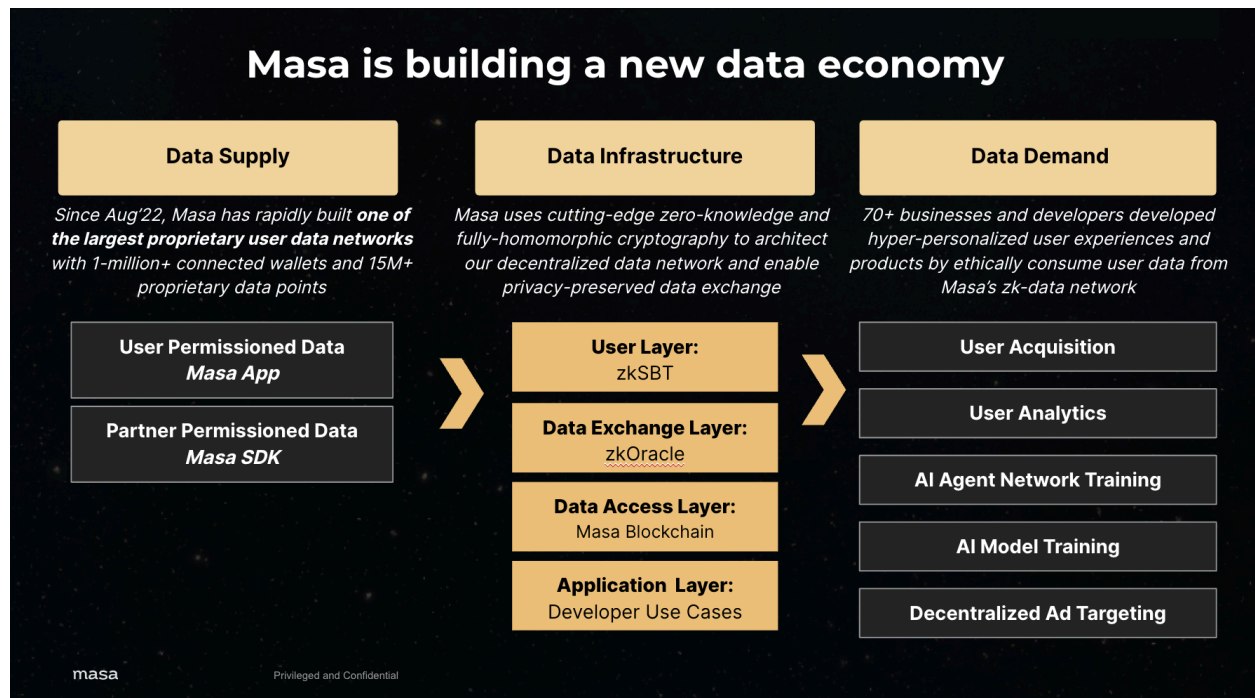
- **Regulatory Privacy Concerns:** Collecting and sharing detailed user data raises privacy issues around consent. Regulators are banning 3rd party cookies. There are also many emerging lawsuits regarding training AI models on copyrighted data – the media called it “[the big risk behind the AI investment boom](#).”
- **Lack of Incentives:** There are very limited financial incentives for data providers (users and businesses) to share their proprietary data. Users don't benefit from sharing their own data, big tech does. Billion-dollar industries were built from monetizing users' data without consent and compensation.

The old data paradigm is broken. Masa is fixing it.

Masa is on a mission to break closed data silos and architect the internet's new nervous system - the world's largest user data marketplace powered by cutting-edge zero-knowledge and fully-homomorphic encryption.

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Masa is prime-positioned to become the largest zk-data marketplace, as we have built two unique differentiators: the **Tech** moat and the **Data** moat.



## Our Technology Moat: The Masa Network

Masa pioneers cutting-edge zero-knowledge and fully-homomorphic cryptography to construct the largest, most secure, and resilient zero-knowledge data network. This enables private data exchange at global scale.

The network has four core layers:

### 1. User Layer: zkSBT

The user layer of the Masa Network empowers individual users to secure and manage their personal data using zero-knowledge Soulbound tokens (zkSBT). Masa's invention of the novel zkSBT was [peer reviewed and published](#) at the [7th Cyber Security in Networking Conference](#) in Montreal in October 2023. These zkSBTs enable on-chain or off-chain storage of encrypted data, granting verifiable access passes to specific developers based on programmable terms. Users maintain control over their data and cryptographic keys through the Masa App and partner interfaces, such as browser extensions or mobile apps that utilize the Masa SDK. Important to note that Masa fully supports EIP-4337: Account Abstraction, which empowers internet users to use social login to manage their zkSBT, eliminating the complexity of private key management. This system allows users to govern their data, enabling selective disclosure through advanced zero-knowledge and fully-homomorphic cryptography. Users are economically compensated for their data contributions through stable coins, blockchain-native tokens (e.g. BNB) and the MASA Token, aligning economic models between data providers and data consumers.

### 2. Data Exchange Layer: zk-Oracle

The Masa zk-Oracle Network is a decentralized network of oracle nodes that act as an intermediate privacy-preserving data exchange layer. The oracle nodes ingest data from onchain and offchain sources into a standardized format, processing, validating, and enabling analysis of data while maintaining indexing for efficient data queries. Utilizing zero-knowledge proofs and homomorphic encryption, the network preserves user privacy while allowing developers to access insights without exposing raw data. The system supports encrypted messaging, VPNs, and decentralized file transfers, enhancing community-built applications. Oracle nodes use zero-knowledge proofs to write encrypted data ensuring privacy preservation. To participate, oracle node operators stake MASA tokens – stMasa tokens are issued which can be restaked on the Avalanche Subnet – oracle node operators earn rewards in MASA and fees from oracle usage from applications built on Masa.

### **3. Data Access Layer: Masa Network on opBNB and Avalanche Subnet**

The opBNB and Avalanche Subnet layer in Masa serves as the blockchain infrastructure for user zkSBTs and vital data access protocol contracts. Masa leverages opBNB and Avalanche Subnet for high-throughput issuance and validation of zkSBTs, ensuring a fast and cost-effective environment. By deploying zkSBT contracts on a dedicated subnet, Masa achieves modular optimization and horizontal scaling, enhancing infrastructure efficiency as adoption grows. Masa's innovative gasless architecture eliminates transaction fees, promoting mainstream adoption. Validators restake stMASA tokens enabling them to run validator nodes on the Masa opBNB and Avalanche Subnet and earn rewards in MASA and fees from subnet usage from data consumers. This combination of targeted scaling through Avalanche's subnets and opBNB and Masa's gasless architecture provides high-performance blockchain infrastructure for global-scale zero-knowledge data access control.

### **4. Developer Layer: Applications**

The Application Layer provides the interfaces and tools for developers to build a new class of privacy-preserving, decentralized applications built on Masa's underlying zero-knowledge data network. The Masa Network helps solve the current bottlenecks around internet-scale user data, which remains locked in fragmented proprietary silos. The Application Layer allows developers to leverage the network's capabilities:

- Decentralized apps can train cutting-edge generative AI models on rich encrypted data sourced ethically from consenting users worldwide. This democratizes access to the data needed to drive AI innovation.
- Businesses can share data to enable collaborative analytics and machine learning without exposing competitive intelligence. Masa incentivizes opening up data while preserving privacy.
- Individuals can monetize their data and control access to drive equitable value exchange, shifting power from institutions back to users.

By empowering developers to build on its zk data network, Masa will revolutionize the data paradigm, unlock new products and AI applications, and return control over data to users - driving outsized economic value while preserving individual privacy.

## **Our Data Moat: Products and Traction**

Achieving critical mass with a sufficiently broad and deep data set is key to building the world's largest zk data marketplace. We've achieved this first-mover advantage by amassing user identity and behavioral data that is used for user engagement, growth, and analytics. Thanks to our users and partners, Masa has established a commanding lead, unlocking a trillion dollar market opportunity.

Since launching in August 2022, Masa has rapidly built the leading zk data network with a unique and proprietary dataset that is growing exponentially:

- 1-million+ unique user wallets have permissioned their data to the Masa Network;
- 70+ businesses and developers have consumed Masa Network data;
- 15-million+ events across 10,000+ on-chain and off-chain data categories processed through the Masa Network.
- Our wide range of data categories include web2 front-end events, web2 social events and sentiment analysis, web3 on-chain events and wallet interactions, and identity data;
- 8 Blockchains supported, including Ethereum Mainnet, BNB, opBNB, Polygon, Avalanche, Base, Celo, and Scroll, and expanding to more EVM- and non-EVM in the next 3-6 months.

The key to our exponential growth lies in building viral, utility-driven products that drive massive network effects: **Masa Growth** and **Masa Analytics**. By offering reward campaigns to users and an invaluable data insights product to projects, we have established verticals for user acquisition. In the near future, we will retain these users by allowing anyone, anywhere to monetize their data.

- **Masa Analytics** offers the first unified (web2 & web3), privacy-preserved (cookieless) analytics solution for understanding web3 user behavior and driving growth. In 2023, the Masa Team spoke to more than 100+ projects in web3. One problem became clear: in a bear market, real active users have become harder to acquire and even harder to retain. Web3 builders are now forced to deeply understand their users and their behaviors in order to achieve long-term success and product market fit.

Masa Analytics became a game-changer for web3 projects seeking to make data-driven decisions without compromising user privacy. We have already been powering analytics for some of web3's biggest players, for example helping QuickSwap with campaign analytics and user segmentation. With 15,000,000+ events already streaming through the Masa Analytics engine, Masa Analytics is a crucial part of Masa Network's product suite.

- **Masa Growth** provides gamified quests, SBT badges, and domain names that incentivize community engagement. Users can access all their favorite features - including rewards campaigns, referrals, soulname minting and more - in a simplified, clean and easier-to-use interface. We are firm believers in using the power of Soulbound Tokens and Non-Fungible Tokens to build a thriving and loyal community in web3. To date, over 1-million SBTs have been minted through Masa to power web3 identity and community engagement campaigns.

With web3 as our launchpad, Masa's ambitions are internet-scale. We are expanding into the wider web by applying zero-knowledge encryption to transform data utilization. Key applications include: **Masa zkAI**, which powers developers to train AI models with zkp data at scale; **Masa zkAI Agent Network**, which allows developers to train AI agents with zkp data for highly personalized user engagement; **Masa zkAds**, which enables interest-based ad targeting without exposing personal data; **Masa zkML** allows model auditing without revealing underlying data or methodology. **Masa Network's Application Layer** powers an ecosystem of developers to build a new class of privacy-preserving applications, which will be built on the Masa zk-data network.

Masa's current and future products are acquiring permissioned user data at a critical velocity. We've established the first-mover advantage with a deep data set and vertical product market fit, which is incredibly hard to replicate. Masa's head start has allowed us to refine network architecture, data pipelines, and tooling specialized for decentralized data exchange across categories. This network effect will attract more developers and diverse data, stimulating hypergrowth. The larger and more varied the dataset, the more valuable the Masa Network becomes.

Our accomplishments have also earned recognition from leading investors and institutions. Masa has successfully raised \$9.2M in venture capital from leading investors such as Anagram, Digital Currency Group, GSR, and GoldenTree. In Spring 2023, Masa was one of the 12 projects selected from 1,500 applications for Binance's highly-selective Most-Valuable Builder accelerator; on demo day, Masa won the #1 spot in the Binance Accelerator based on investor votes. Masa's accomplishments have been recognized and featured by the World Economic Forum's Digital ID initiative, CNBC, NASDAQ TV, New York Stock Exchange, Consensus, EthDenver, CoinTelegraph, CoinDesk, Blockworks, TechCrunch, and more.

Masa's incredible momentum, even amidst a bear market, is fueled by our passionate community. Over the past 2 years, more than 200,000 members from 196 countries have joined our journey. We are especially grateful to our 400+ Masa Ambassadors and Moderators from 44 countries around the world. Their dedication drives our global movement.

## Token economics

The Masa Network will be powered by a native token called MASA that aligns incentives in a novel data economy and gives holders governance power over the network's evolution.

### Token Incentives

Masa implements an innovative monetary policy to incentivize network growth by distributing MASA tokens directly to end users as rewards for supplying valuable data into

the zk data marketplace. This approach enables ordinary internet users to passively monetize their data and behaviors, receiving automated MASA payouts proportional to their contributions.

For instance, when browsing the web or using apps integrated with Masa SDK, users can consent to provide encrypted data points. As this data trains AI models or powers analytics, users earn MASA in an equitable value exchange that shifts control from institutions exploiting data back towards end users.

Distributing supply to end users aligns incentives, bootstrapping essential data liquidity for applications and driving viral growth. MASA rewards give users a stake in the network's advancement, forming a user-owned data economy where individuals are compensated for benefiting the network with their data, time, and attention. Users can further participate by delegating their tokens to oracle node operators to participate in governance and earn fees from the network. This tokenomics design elegantly incentivizes user behaviors that advance a collective mission to transform data utilization in the AI era.

## **Staking Incentives**

To construct a resilient foundation for the consent-based data economy, Masa implements aligned tokenomics mechanisms across our oracle and blockchain. We require node operators to stake substantial MASA tokens, governing influence and fees while initiating a vesting schedule that incentivizes long-term commitment to a robust, decentralized network of high-quality, reliable nodes. Operators received staked MASA stMASA which can be utilized on the Masa Avalanche subnet, where user zkSBTs are minted and data service fees are collected. Tying staking incentives across the oracle and blockchain layers reinforces security and accuracy.

## **Network Fees**

As businesses build applications leveraging Masa's zk data marketplace, they pay usage fees for data and services. These fees are treated in the following way:

- To oracle nodes as an incentive for providing reliable data encryption, data storage, and off-chain and cross-chain data access;
- To Avalanche Subnet validators for providing reliable infrastructure for data access through zkSBTs;
- Back to user wallets that supply valuable data to encourage ongoing participation. Users earn passive income from monetizing data;
- Into the DAO community treasury to fund future development, research, marketing, and other initiatives in a decentralized manner; and
- A percentage of fees will be returned to the protocol and a percentage will be burned – the specifics of which will be determined at network launch.

This ensures fees sustainably and aligns incentives between key stakeholders.



## **Governance**

MASA holders can participate in governance votes on proposals like technical upgrades, fee structures, and other matters. Over time, governance will progressively transition to a decentralized autonomous organization (DAO) model where the community controls network policies and treasury distribution. This governance model aligns decision-making with those invested in the network's success - facilitating sustainable growth.

## **Conclusion**

At Masa, we are architecting the new data paradigm for the AI era. Our zk-data marketplace catalyzes an open, empowered data economy - one where innovation thrives while user privacy and control are guaranteed. With over 1-million user wallets and 70+ partners in 17 months, we are well positioned for network effects needed for internet scale. Masa will lead this paradigm shift, creating a world where user data is private by default, and millions of businesses engage with billions of users through our zk-data marketplace.