$BOND White Paper

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Introduction

AirDAO operates as an independent Layer-1 network, providing a robust and scalable blockchain infrastructure. The network is EVM-compatible, allowing seamless integration with Ethereum-based applications and tools. Utilizing a Proof of Authority (PoA / AURA) consensus mechanism, AirDAO boasts over 170 active nodes on AMB-NET, ensuring decentralization and security. Accessible on Binance and other exchanges, AirDAO offers users the ability to trade and interact with $AMB and $BOND tokens easily. Community governance is a cornerstone of the ecosystem, with routine elections empowering users to have a say in network decisions. With over five years of operational experience, AirDAO has established itself as a reliable and mature blockchain platform.

The AirDAO ecosystem represents a highly advanced and scalable blockchain network, meticulously designed to deliver exceptional security, speed, and efficiency. This document provides an in-depth look into the $BOND token and why it is one of the fundamental pillars of AirDAO's ecosystem.

Key Terms and Concepts

AMB-NET: The decentralized network that powers the AirDAO Blockchain. It coordinates hundreds of nodes in securing the application layer of the AirDAO Ecosystem. AMB-NET exists to enable community members and builders to easily prototype, test, and deploy Web3 applications and easily bridge over assets from Ethereum and BNB Chain.

AMB-Chain: The foundational blockchain of the AirDAO ecosystem, leveraging a Proof of Authority (PoA / Aura) consensus mechanism. This mechanism ensures low latency and transaction costs, making AMB-Chain an ideal platform for both public and private applications. AMB-Chain's robust design ensures data integrity and security, providing a reliable foundation for the development and deployment of blockchain-based solutions across various industries.

AMB-dApps: The decentralized applications built on the AMB-Chain. These dApps utilize the security, transparency, and efficiency of the AirDAO blockchain to deliver a range of services and functionalities without relying on a central authority. AMB-dApps can be developed for various use cases, including finance, supply chain management, healthcare, and more. Developers can leverage the provided SDKs and APIs to create innovative solutions that harness the power of blockchain technology, offering users enhanced trust and functionality in their digital interactions.

$AMB: The native utility token of the AirDAO ecosystem, serving as the primary medium of exchange within the network. Users utilize $AMB for transaction fees, staking, and governance purposes. By staking $AMB, users can participate in the network's consensus process and earn rewards for validating transactions. Additionally, $AMB plays a crucial role in the overall economic model of AirDAO, incentivizing user participation and securing the network. The token's utility and widespread acceptance within the ecosystem drive its value and importance for all participants in the AirDAO community.

Part 1: The $BOND Token

This section provides a detailed examination of the $BOND token, a fundamental component of AirDAO's token economy. $BOND is a bonded version of $AMB, rewarding validators within the AirDAO ecosystem.

1.1 $BOND Basics

1.1.1 What is $BOND

$BOND is a bonded version of $AMB designed to provide users, particularly validators, with an opportunity to earn higher rewards by sacrificing immediate liquidity. This unique token serves as a primary reward currency for validators, allowing them to lock in their $AMB holdings for a specified period, during which they cannot redeem $AMB but can trade, sell, or hold $BOND tokens on the Kosmos Marketplace. This structure offers a compelling option for long-term investors within the AirDAO ecosystem, especially validators who are willing to wait for larger returns upon the tokens' expiry. Once the bond matures, $BOND holders can redeem their tokens for $AMB, which can then be traded for other digital assets within the AirDAO ecosystem or tokens from other projects entirely.
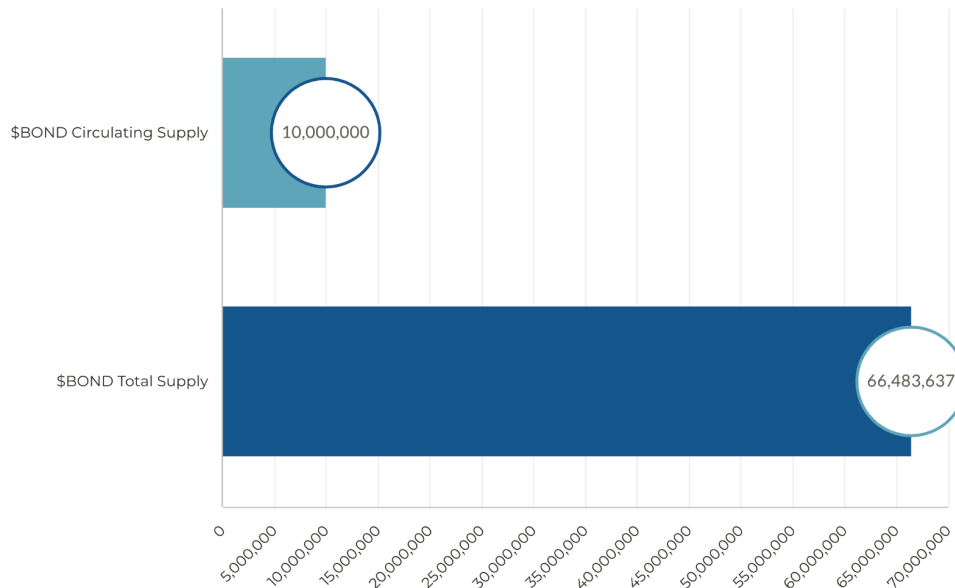
1.1.2 $BOND Supply Dynamics

The supply dynamics of $BOND are carefully designed to balance availability with exclusivity, enhancing its value proposition for investors. A few aspects of the token are broken down below:

$BOND Supply

Token Holder Addresses
: 353

Circulation Market Cap
: $110,417

The current supply of $BOND stands at

➔ 10 million $BOND Circulating Supply, contributing to a robust market with sufficient liquidity for trading activities.

➔ 66,483,637 $BOND Total Circulating Supply (August 2024), ensures a steady stream of rewards for validators over many years. This supply is subject to change, and will keep pace with ecosystem growth.

As of August 2024, there are 353 token holder addresses, reflecting a concentrated yet growing community of $BOND investors. With a market cap of $110,417, $BOND offers a promising outlook for those looking to invest in the long-term potential of the AirDAO ecosystem.

1.1.3 Redemption and Trading

$BOND is tailored for investors who are willing to embrace a long-term perspective. The locked-in nature of $BOND ensures that the supply of $AMB remains controlled and that long-term members of the ecosystem, like validators, receive the rewards. This design helps to mitigate the risks of short-term market volatility and promotes a stable growth trajectory for the AirDAO ecosystem. By offering a higher reward for reduced liquidity, $BOND encourages a more strategic approach to investment, aligning the interests of individual investors with the broader goals of the AirDAO community.

$BOND tokens are fully tradable on the Kosmos Marketplace before their expiry date, offering flexibility to users who may need to adjust their investment strategies. Additionally, DEXs like Astra will allow users to swap their $BOND for other ecosystem tokens or sell them directly to users through the platform's P2P marketplace. This feature allows investors to capitalize on market movements and liquidity needs without waiting for the bond to mature. However, it's important to note that $BOND is not redeemable for $AMB through AirDAO until the expiry date. This delayed redemption process is key to the higher reward structure of $BOND, as it ensures that only those who commit to the long-term hold can benefit from the accrued rewards. Once redeemed, $AMB can be used to trade for other assets within the AirDAO ecosystem or beyond.

1.2 Validation and $BOND Rewards

This section will cover the fundamentals of validation and $BOND rewards including how validators are chosen, the role of staking and delegating, and distribution breakdowns for $BOND token rewards.

1.2.1 Validator Nodes

Validator nodes are crucial components of the AirDAO blockchain, responsible for approving transactions and maintaining the network's integrity. AirDAO currently has over 170 validator nodes and an average block time of ~5.2 sec.

When a validator is selected in a Proof of Authority system, they propose a new block which contains a batch of transactions. This proposed block includes essential components such as transaction data, a timestamp, the hash of the previous block, and the validator's digital signature. The inclusion of the previous block's hash ensures continuity in the blockchain, while the validator's signature attests to the block's authenticity and integrity.

Before a validator can participate in block production on AirDAO, it must first meet specific criteria to enter the top list of validators. The validator's stake must exceed the stakes of other validators, requiring at least 400,000 AMB, and the validator must rank within the top 150 by stake size. Once these conditions are met, the validator is added to the validator_set, confirming that it has fulfilled the necessary requirements.

When a validator is added or removed from the validator_set, the order of all nodes in this list is adjusted, creating a rotating queue for block validation across the network. This ensures that blocks are created in a decentralized and stable manner, as validators take turns validating blocks one after another.

The reward a validator earns for creating a block is proportional to the size of their stake—the larger the stake, the greater the reward. This incentivizes validators to maintain substantial stakes while contributing to the security and decentralization of the AirDAO network.

1.2.2 Validator Block Rewards

To calculate validator rewards, AirDAO uses a unique system called Elastic Block Rewards to distribute rewards to users running validator nodes on their blockchain. This system dynamically adjusts the total amount of block rewards based on the percentage of circulating AMB tokens that are staked. The more AMB tokens staked in the network, the higher the total block reward becomes. This creates a system that maintains reward incentives for node providers even if very few tokens are staked.

- There's a minimum block reward of ~14 AMB awarded even when a small portion (less than 13%) of circulating tokens are staked. This ensures some level of reward is always given.
- The block reward increases to ~33.90 AMB at 50% of the circulating supply staked.
- The maximum theoretical block reward is ~60.8 AMB, which would occur if nearly all circulating AMB tokens (100%) were staked. However, this is practically impossible as some AMB would naturally be circulating outside the staking system.

The reward token distribution users get depends on how long they've been running their node. Validator node rewards on AirDAO are split between rewards paid in $AMB and rewards paid in $BOND. New nodes get a smaller portion of $AMB tokens paid out to them, with the rest of the reward paid in $BOND. The older a node is, the more favorable to $AMB this proportion is. After three years, all rewards paid out to node operators are exclusively in $AMB. These can be traded on Kosmos: Bond Marketplace for other digital assets, including more AirDAO tokens or tokens from other projects entirely. Below is the breakdown of each threshold and the rewards users receive from them:

- New Nodes: 25% immediate rewards available in AMB on the first day and 75% in $BOND tokens.
- One Year+ Nodes: 50% immediate rewards in AMB (the incremental increase will be equal to approximately 1% within two weeks).
- Two Year+ Nodes: 75% immediate rewards in AMB.
- Three Year+ Nodes: 100% immediate rewards in AMB.

In addition to validator node rewards, this tiered reward structure will also be implemented in AirDAO's Liquid Staking platform, Harbor. Just as with validator nodes, users who stake their $AMB through Harbor will receive rewards distributed in both $AMB and $BOND, with the ratio shifting over time to favor $AMB as the staking duration increases.

Part 2: Looking Forward

Further utility is planned for the $BOND token and is slated for development at the end of 2024 or the beginning of 2025. Adjustments to node rewards, utilizing $BOND as an index of the AirDAO ecosystem, and re-staking are all being researched and explored at this time (August 2024). Ultimately the goal is to continue to evolve $BOND as a complimentary token to $AMB that serves a unique and definitive purpose to the growing ecosystem. Be sure to follow AirDAO on X and monitor our blog to stay up to date on the latest developments with the $BOND token.