AION

Network to enable interoperability between blockchains

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Aion is creating a protocol that allows interoperability between different blockchains

The project aims to be an integrated blockchain network that allows any private or public blockchain to communicate and send or receive transactions across the network. Interoperability will be enabled by a series of connecting networks and bridges built on the Ethereum blockchain. The team plans to build a native blockchain and token in the future.

Project Overview

Name	Aion
Issuer	Nuco, Inc
Category	Utility token
Sector	Interoperability
Sale Start	N/A
Sale End	N/A

Token Overview

Name	Aion
Symbol	AION
Type	ERC20 token
Initial Distribution	40,000,000
Current Supply	125,000,000
Max Supply	N/A
Emission Type	Ongoing

Resource Links

- Website
- GitHub
- Twitter
- Telegram
- Reddit
- Medium
- Whitepaper

Project Background

Aion is the first project built out of Nuco, Inc, with the goal to provide private and public blockchains with a solution that allows them to interoperate, scale, and communicate with any other private or public blockchain. Nuco was founded by a group of ex-Deloitte employees in 2016 to focus on production-ready enterprise blockchain infrastructure.[1] Development of Aion started in May 2017, and the code was released in March 2018 followed by the launch of the phase one main network in April.

The project aims to provide a protocol and standard for dissimilar blockchains to conduct on-chain communication of arbitrary information, logic, or value with any number of distinct private or public blockchains. Nuco had been developing solutions for the Ethereum blockchain and formalized the concept of the "Enterprise Ethereum Stack" leading to the early implementation of Aion being based on Ethereum. In the future the team plans to migrate the protocol to a native blockchain called Aion-1 with will run on its own virtual machine.

In order to achieve its goal of linking multiple blockchain networks Aion plans to integrate a series of connecting networks and bridges that allow for interchain communications. Miners will be responsible for verifying transactions and securing the various parts of the Aion protocol.

[1] Source: https://nuco.io/documentation/latest/docs/intro/intro

Technology

The Aion network will consist of participating networks, connecting networks, bridges, the Ethereum blockchain, and eventually the Aion-1 blockchain.

Participating networks are any networks that integrate with the Aion network through a connecting network and bridge. Typically, a participating network will be a private or public blockchain, but participating networks, in theory, can also be oracles, crpytlets, or database clusters. Participants must meet specific standards to be Aion-compliant. Blockchains must support atomic transactions, recognize interchain transactions as distinct from regular transactions, integrate appropriately with the Aion network of connecting networks and bridges, and allow for locktime or a similar mechanism that will enable tokens to be held in escrow for a specified period.

Participating blockchains will use the Aion network of connecting networks and bridges to generate interchain communication, such as transactions. Interchain transactions are created from a source blockchain, processed and forwarded by bridges and connecting networks, and received by target blockchains. The participating network that creates an interchain transaction must pay a transaction fee in Aion (AION) tokens to the network of connecting networks and bridges.

Connecting networks will function similar to decentralized exchanges that use relayers to coordinate the exchange of tokens. Aion aims to develop a protocol allowing third parties called 'connecting networks' to facilitate interchain communication and interchain transactions between private and public blockchains. Connecting networks will provide an interface for blockchain developers and users to route messages and transactions between different networks through a common bridging protocol. Connecting networks will have control over their internal functionality, but must adhere to the standardized Aion network protocol for external functionality.

Consensus on connecting networks will use a hybrid proof-of-stake verification and a proprietary verification algorithm called proof-of-intelligence. Participating nodes can self-nominate to become a validator in the proof-of-stake consensus mechanism. Users back proposed validators through two methods: staking AION tokens or contributing resources to solve machine learning-based cryptographic puzzles through the proof-of-intelligence algorithm. Validators that receive the most backing are elected to secure the network for a specified term. Once the term is over, the process repeats and new validators are chosen. Validators and backers receive AION for their role securing the network.

An Aion network bridge aims to serve as a communication protocol that facilitates communication between participating networks and connecting networks. A bridge is meant to ensure that communication from the source blockchain reaches the destination blockchain. Bridges will have a separate and distinct network of validators, who will use a Byzantine Fault Tolerance BFT-based algorithm to validate the authenticity of messages and reach consensus of the chain state. Each bridge will have their own set of validators who vote "yes" or "no" to interchain communication. If over two-thirds vote yes, the connecting network will change state, and the communication will be processed, otherwise, the transaction will fail, and the state will remain the same. Anyone can attempt to become a validator by staking tokens to publicly available bridges; however only a particular set of validators will be chosen by the network.

The first implementation of Aion will use the Ethereum blockchain in two distinct ways. First, AION will be issued as an ERC20 token used for staking, paying transaction fees, or other payment implementations. Second, Ethereum will serve as the underlying ledger for reaching consensus for connecting networks and bridges. Eventually, the Aion network's goal is to transition to the Aion-1 blockchain and virtual machine which will allow for the full integration of connecting networks and bridges.[2]

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[2] Source: https://aion.network/media/en-aion-network-technical-introduction.pdf

Distribution

Aion conducted two token sales between Aug. and Oct. 2017. First was a private sale to institutional and accredited investors and followed by a pre-sale to the public. The project initially scheduled a main public token sale, but canceled it in late 2017 citing volatile markets and enough funding from the previous sales. A total of 466.0 million tokens were created.

Of the 466 million tokens minted, Aion Foundation and Founding Partners were each allocated 20% (93 million AION), while 51.5% (240 million AION; most of which came from tokens earmarked for cancelled public sale) were allocated for redistribution to token holders as a part of the Token Release Schedule (TRS), which was designed to incentivize long term commitment from public token holders and the Aion Foundation/Founding Partners. The intent prior to the cancelation of the public sale was for any leftover tokens from all sale rounds to be allocated to the TRS redistribution pool.

The public TRS was allocated 120 million tokens, which in addition to the amount contributed to the TRS (37 million AION), are being released to token holders who chose to contribute over 12 months, 25% of which was distributed in the first month (49 million AION), with a continued release of 6.25% (9.8 million AION) over the remaining 11 months, ending November 15, 2018.

The private TRS was allocated 120 million tokens, which in addition to the amount contributed to the TRS (186 million AION), are being released to the Aion Foundation and Founding Partners evenly over 36 months at a rate of 2.8% per month (8.6 million AION), ending November 15, 2020.

In April 2018, the Aion team announced a monetary policy with a fixed inflationary model of an annual 1.0% inflation of total supply to be rewarded to validators for verifying the network. The expected daily rewards will be approximately 12,943 AION per day for the first year.

Roadmap

The Aion team has outlined three phases for their roadmap. The Aion network launched their first mainnet Phase 1 (Kilimanjaro) starting April 25th, 2018.

Phase one is called Kilimanjaro and is expected to be completed in 2018. The goals of Kilimanjaro are to create a modified, high-performance EVM, functioning bridging and interchain communication, and modified proof of work algorithm.

Phase two is called Denali and is also expected to be completed in 2018. The goals of Denali are to create the first implementation of the Aion virtual machine and the Aion scripting language, and the introduction of the proof of intelligence algorithm

Phase three is called Everest and is expected to be completed in 2019. The goals of Everest are to improve the bridging protocol so allow for more communication of more complex logic across chains, improvement on the validator nomination processes and algorithms, and implementation of the version two of the Aion virtual machine.

[3] Source: https://blog.aion.network/publicsaleupdate-fa92cff05aed
[4] Source: https://webcache.googleusercontent.com/search?q=cache:SZ1FhTyCCvEJ:https://aion.network/downloads/aion.network_token-sale-mechanics_en.pdf+&cd=1&hl=en&ct=clnk&gl=us
[5] Source: https://aion.network/media/en-aion-monetary-policy-v1..0.pdf

Team

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John Lee
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Eric Wetlaufer
Board of directors at TMX Group

Investors

Bessemer Venture Partners

Plug and Play

XDL Capital Group

AdditionalResources

- [AionEx Conference](#)
- [TechCrunch: Aion Launches First Public Blockchain Network](#)
- [YouTube: Interview with Aion Network](#)

- [Aion Dashboard](#)