

Chainbing 1.0: Blockchain Information Aggregation Engine

Abstract

Chainbing is dedicated to storing, indexing, analyzing, and sharing data on the blockchain to provide users with fast and accurate information. By introducing data witnessing mechanisms to ensure the reliability of data, and by providing rewards for participants who provide validation, Chainbing will develop into an energetic ecosystem.

Chainbing will focus on the following key areas.

1. Data collection and storage: the underlying data network consisting of hardware nodes involved in data storage.
2. Data Intelligence Analysis: Artificial intelligence-based big data analysis tools provided by Chainbing
3. Content provision and access: providing valuable information to help Chainbing grow and earn token incentives; users need to pay tokens to access paid content.
4. Consensus mechanism and witnessing: Token holders can participate in the witnessing of data and content to ensure the accuracy of data.
5. Community Governance: Token holders will have the right of community governance, and the community will drive the development of Chainbing.

Showcasing the initial and ongoing innovation of the Chainbing community will provide a blueprint for the potential of the Chainbing network in each of these areas under an incentive-based economic model.

1. Introduction

Today, with the boom in smart contracts and layer 2 networks, on-chain data is becoming increasingly difficult to interpret and track. On-chain data is no longer limited to ordinary transfers but contains more and more additional information. How to distill and share this new information will be the next problem that blockchain networks will face.

As blockchain data proliferates there will be an increasingly broad role for Blockchain Information Aggregation Engines (BIAE), which provide users with fast, reliable, and confidential information. Chainbing achieves this through the use of nodes run by various entities to form a network. Data collection nodes (Collectors) focusing on the collection of raw data, data processing nodes (Processors) responsible for processing raw data into user-readable content, content creators (Creators) outputting original content based on the data, and validators (Monitors) used to maintain the correctness of the information.

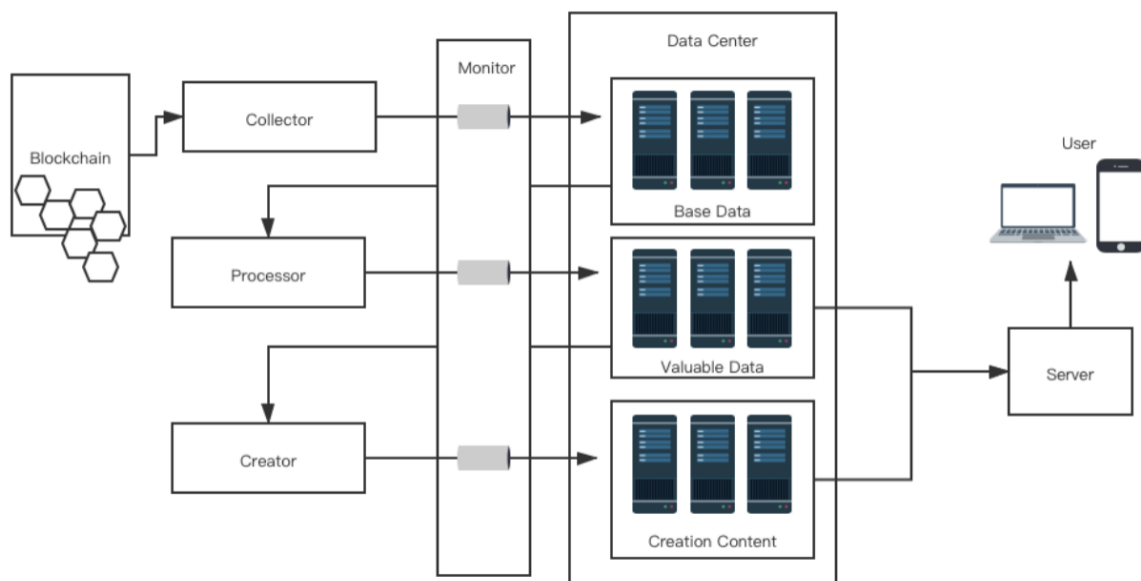


fig1: BIAE Overall Architecture

1.1. Decentralized Data Center

Decentralized data centers are implemented by providing three basic resources of a computer system: network, storage, and computation. BIAE aims to provide high availability, high intelligence, and high decentralization for these resources.

Data collection nodes will follow the BIAE protocol specification to enter raw blockchain data into the data center. Processing nodes will convert raw data into common data according to the BIAE protocol specification, which is already directly available to users through search engines. The creation nodes can process the data twice and produce their own original content.

All the above data is stored in the data center nodes. The data centers use slicing technology to reasonably allocate the basic resources in the network to achieve load balancing and high availability.

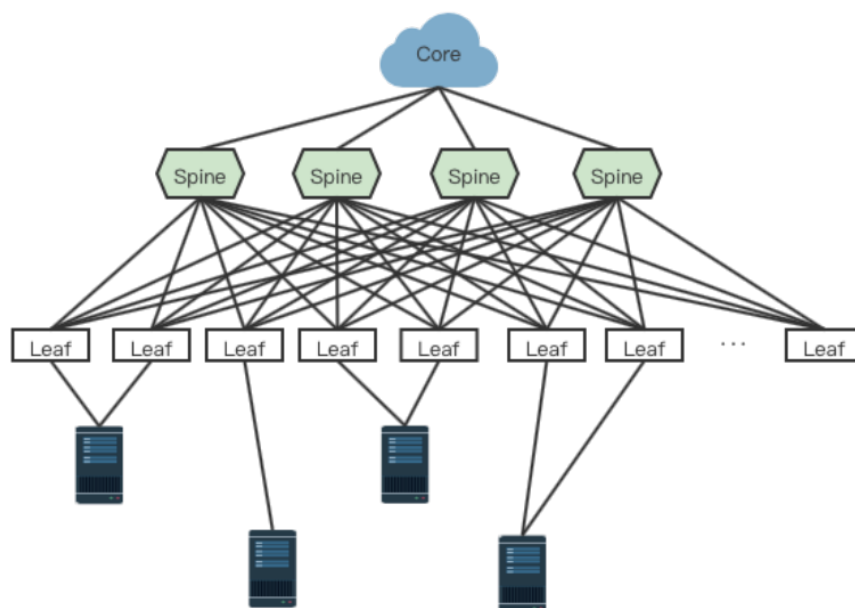


fig2: Network Topology of a Data Center Node

1.2. Core Value of Data

The core value of data lies in effective sharing. Data must be aggregated, integrated, and analyzed to generate value. Fragmented information silos cannot realize real business value. The BIAE network provides powerful artificial intelligence big data analysis tools that allow creators to easily access valid information on the chain and transform it into more valuable original information.

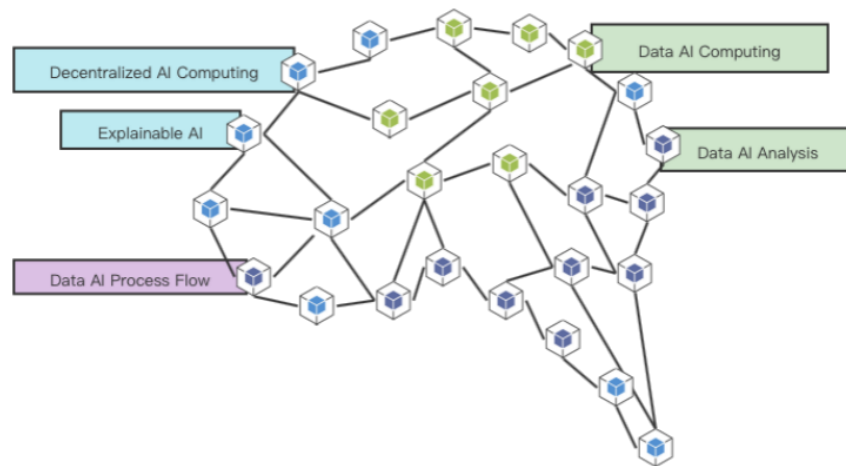


fig3: AI Big Data Analytics Network

1.3. Token Incentive Economy Model

A token economy will be introduced into every aspect of the BIAE network. This embedded token integration will ensure the BIAE is a network of value. A good token economy model should support the security and sustainability of the network. At the same time, it should benefit all participants of this network, including validators, creators, and users, while at the same time enabling the network to grow.

The target pledge rate for Chainbing network tokens is 35%. The lower pledge rate allows more tokens to be used for other purposes. Most importantly, Chainbing does not have to pay any excess cost for security, as a higher target pledge ratio requires a higher token issuance rate to maintain a reasonable return for verifiers.

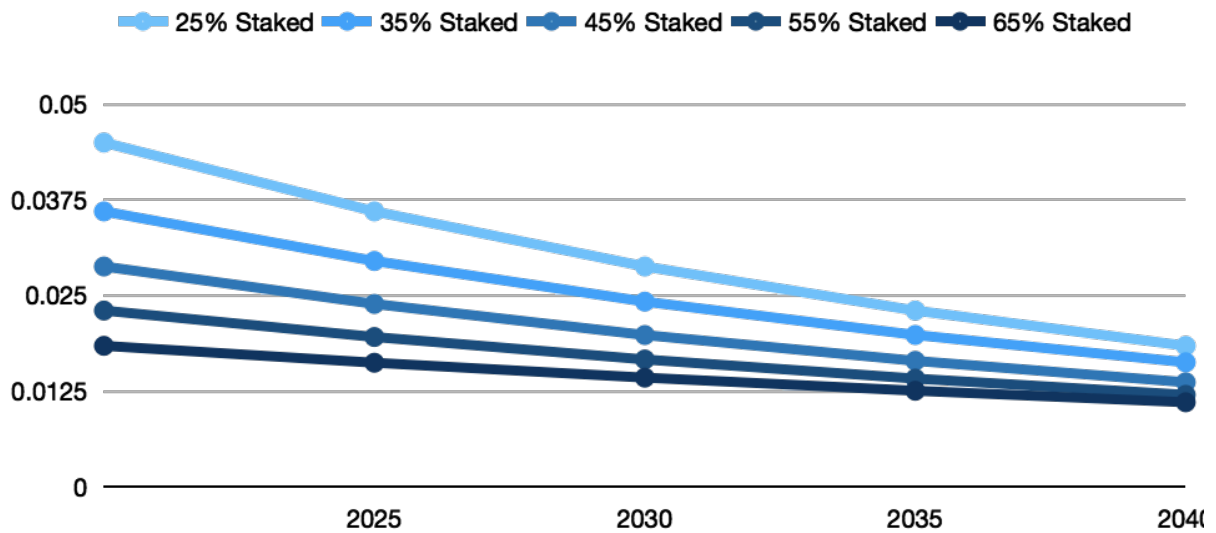


Fig4. Issue Forecast with Different Pledge Rates

This dynamic model shows that the 35% target pledge ratio will allow the network to increase its yield to 2.9% in 2025, decreasing to 1.6% by 2040. Assuming the network is in this target pledge range, the pledge yield would be between 10.5% and 4.1% over the same period.

1.4. Joining the Chainbing Network

The Chainbing node software was developed to allow users to quickly access the Chainbing network. Whether they want to become a data center node or an authentication node, after installing the software, users can configure their role in the Chainbing network as required.

2. Development Roadmap

2021, Q3 & Q4:

Initial completion of the underlying protocol

2022, Q1 & Q2:

Alpha version of node components completed

2022, Q3:

Chainbing main network skeleton construction completed

2022, Q4:

Launch of the first data center

2023, Q1 & Q2:

Construction and completion of the first generation AI data analysis center

2023, Q3 & Q4:

Steady development of community ecology, advanced content creators on board

Disclaimers

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