



# BBS Network

bbsnetwork.io

## Abstract

The BBS Network is a **public network of interconnected message boards (nostalgically called BBSs, for the Bulletin Board Systems of the early Internet)**. Each and every post is stored as a unique NFT on-chain, and the BBS Network Token can be used to lease its associated ad real-estate (e.g. banners on posts), across the network. BBS tokens can also be staked to govern the network standards and direct the product development. 50% of the BBS tokens will be paid to the BBSes based on the level of their registered user activity. In a sense, BBS can be likened to a “Public Reddit”, distributed across multiple domains to prevent centralized censorship, while maintaining a network-effect and openness for anyone to build upon.

BBS end-users are rewarded based on their contribution, as well as for their legacy social media clout (e.g. Twitter Followers, YouTube Subscribers, Reddit Karma, etc), incentivising the migration of influencers from existing platforms to BBSes. Revenues are distributed automatically to the post publisher, board admin and the NFT’s previous owner - encouraging healthy community-wide alignment of interests between all stakeholders. A pre-launch version of the first BBS is currently being piloted on [bbs.market](https://bbs.market) as well as other domains.

## Key Differentiators

BBS Network is similar in many ways to the widely popular message boards offered by the currently dominant platforms such as Reddit and Facebook Groups, however, it is different in that BBS is a *public online service*, meaning that it utilizes a distributed *architecture*, distributed *revenue model*, and distributed *infrastructure* - rather than a centralized backend and unilateral control of the product, service and profit.

The Internet is a distributed network, and the initial batch of online services were distributed as well, including email, newsgroups, IRC and many others. They could be offered by any number of service providers, avoiding a single point of failure, and a *single point of control*. However, it was unrealistic to scale public online services without being able to utilize a *public database* (such as Blockchain, developed much later), which is why we’ve seen proprietary solutions take over almost every online service category (except email - which had to survive as an

open-protocol even without a global, public database, given its function as the standard online identity and authentication system).

BBS Network architecture presents a solution that uses public databases efficiently to create a network of message-boards that is fully distributed, while still benefiting from the combined network effect of all boards in the network (by being interoperable on aspects such as user authentication, content discoverability and the execution of ad campaigns). This allows for a win-win-win stakeholder design that was simply not possible before blockchain added public database capabilities to the Internet.

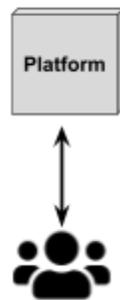
## Distributed Architecture

Today's message board services are each operated by a single corporate entity while BBS Network is an ecosystem of contributing entities and participants. Each BBS can be owned and operated by a different entity, which can host different BBSes and set different terms of use, while all BBSes remain tightly integrated through leveraging a public DB architecture.

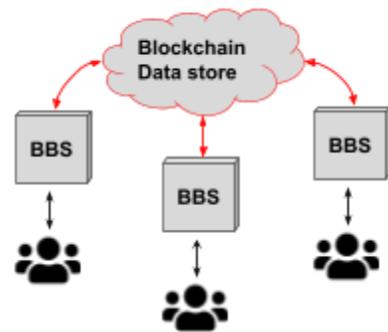
Modern blockchain technology makes it possible to store BBS network data such as user accounts, boards, posts, replies and reactions on a shared public ledger. This

architecture opens up read and write access to BBS network data for all ecosystem participants - very much *unlike* today's dominating platforms where only the central entity ultimately controls access to the data (and thus to the profits it generates).

Reddit / FB / Twitter / YT



BBS

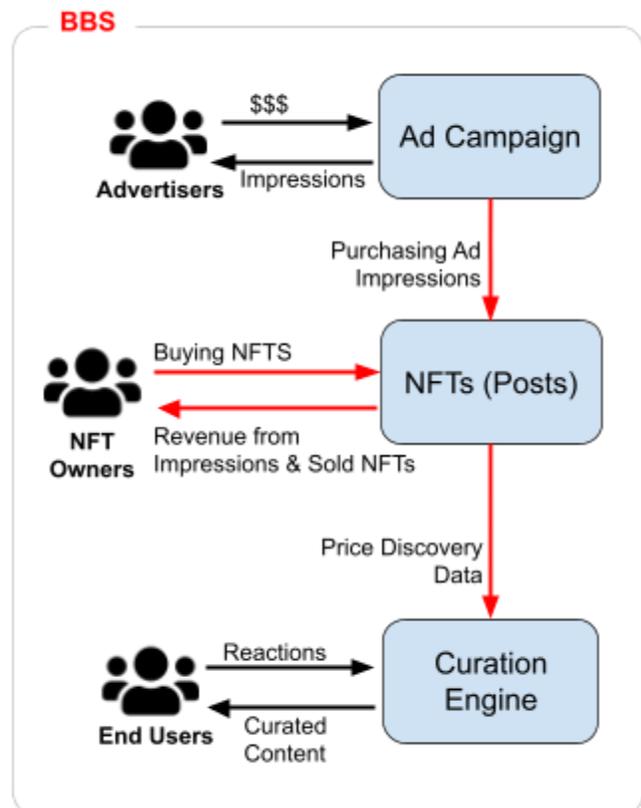
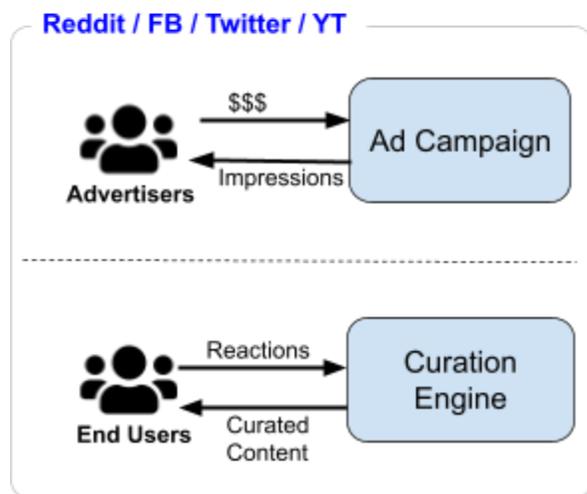
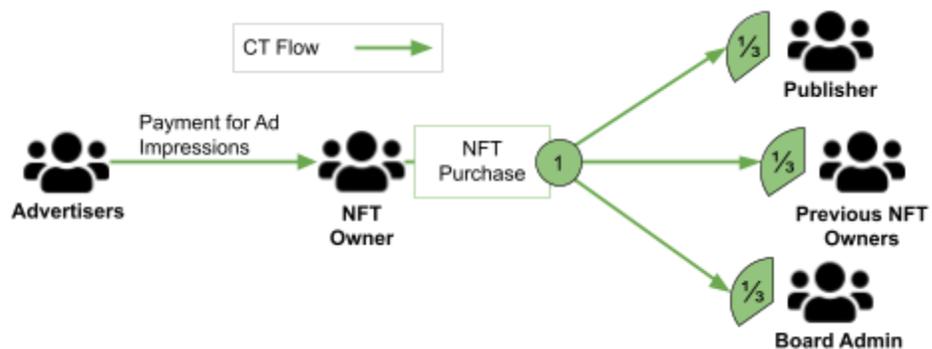


## Distributed Revenue Generation Empowers Content Curation

Today message boards typically sell their ad inventory to advertisers, while using an entirely separate mechanism for content curation, which typically relies on user reactions (clicks/likes/upvotes/etc.) that are not difficult to manipulate.

BBS Network leverages an NFT *Bidding Model* which enables anyone to purchase the ad space real-estate of any post (NFT) across the network at a price that is \$0.30, or 30% higher than the last price, so each post (and its associated ad space) on the BBS Network is continuously and publicly offered for sale at transparent and predictable prices. The revenue generated from each post is shared between the post owner(s), the post publisher, and the board moderator.

When a post's NFT is purchased for a price 30% higher than the last price, the previous owner receives back what they paid as well as 10% "earning". The post publisher and



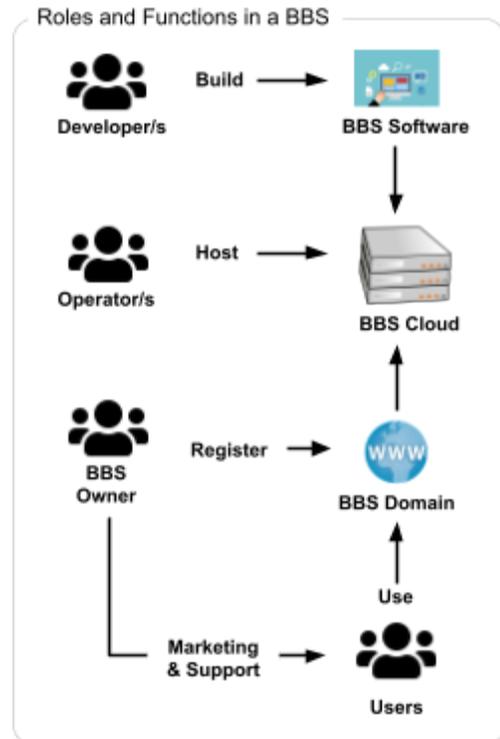
the board moderator earn the rest of the price difference (10% each), encouraging healthy BBS moderation and maintenance.

The initial purchase price starts by default at \$0.30, increasing with each new buyer. The result of this price-discovery process is that a post's owners are incentivised to correctly predict each post's potential future income, while the board administrator and original publisher earn their income in advance based on the crowd prediction. This rich transaction data can then be used as an *invaluable signal for predicting a post's potential popularity within the community*, enabling, for the first time - *value-based content curation*.

## Distributed Ecosystem

The network is made up of potentially infinite BBSs (Bulletin Board Services) where every BBS in the network is a full Reddit-like service, with any number of subreddits, users, comments and community features. All BBSs are interlinked and interoperable because their data resides on a public blockchain which any developer or user can interact with. The ecosystem consists of the following stakeholders:

- **Developers** can build new UX, product components, and features for any operator to choose to host.
  - *deWeb LTD is the first developer building the core software for the BBS Network.*
- **Operators** host developers' BBS software to serve any number of BBSs.
  - *Currently, several operators offer BBS cloud hosting globally.*
- **BBS Owners** use the operators' services to launch their own BBS under a shared or their own domain.
  - *The first BBS was launched in March 2021 by the owner of a Star Wars fans YouTube channel with 3m subscribers: [starwarstheory.com](https://www.youtube.com/channel/UC10000000000000000000).*
  - [BBS.market](https://www.bbs.market) was launched in Aug 2021, enabling anyone to easily create a BBS.



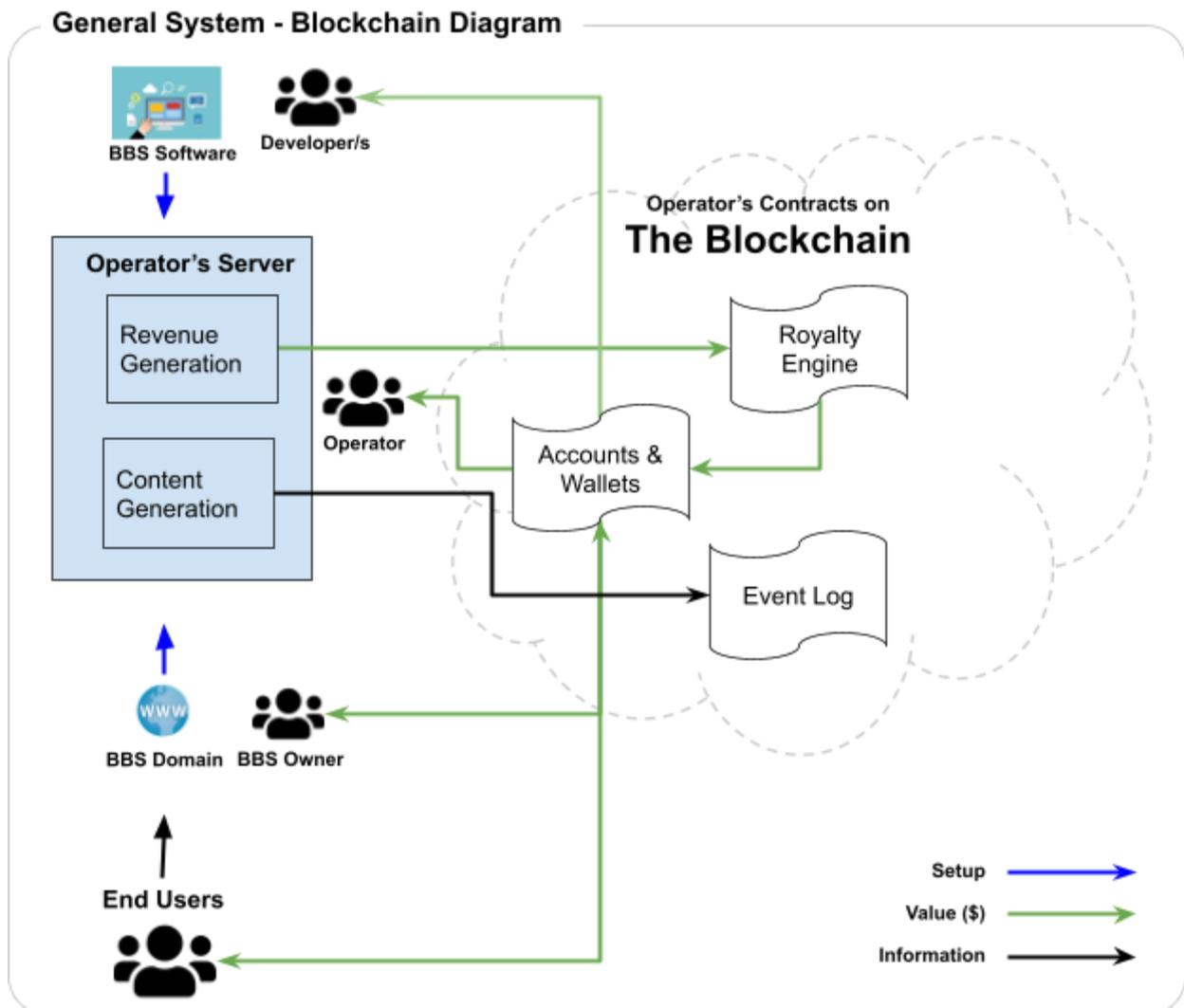
The BBS network uses a **distributed identity and authentication model**, similar in nature to the model used by the global email network, where the members' home domain is associated with their unique ID (i.e. [member@bbs.domain.com](mailto:member@bbs.domain.com)). However, BBS members have full control over their accounts through their digital signatures and can change their home BBS at any time.

## Community Tokens (CT)

Each BBS issues its own community token (CT), a USD stable token that is distributed as bonuses and can be used for purchasing posts ad-space NFTs on that BBS. As noted, NFT prices are used both for curation and revenue sharing purposes between the contributors. The BBS owner maintains control over the CT and may freeze and unfreeze members' CT balances according to their terms of service or discretion. Only CT that were earned through NFT purchases (as a publisher/moderator/previous-owner) can be cashed-out by the end user.

## CT Revenue Backing and Cashier

- In order to enable cashing-out of a user's CT balance, a BBS has to allocate a share of the generated revenue (default set as 70%) towards the "Cashier" system.
- Revenue is received in BBS tokens.
- CT holders wishing to cash-out some of their tokens through the Cashier will receive \$1 worth of BBS tokens per \$1 CT according to the following policy:
  - If the cashier's BBS token balance is sufficient (higher than the amount being cashed-out), then cash outs can be processed instantly.
  - If the cashier's balance is insufficient (lower than the amount being cashed-out) then cash outs can be processed as soon as sufficient new revenue has been accumulated by the cashier.
  - In cases where there are multiple cash-out requests, they are handled in the order in which they are received ("Cashier's line").



## The BBS Token

The BBS Network utilizes an ERC-20 token - BBS (written here with a strike through the S). The BBS token is used as the native currency of the BBS network, flowing between BBSes, Operators and Developers. BBS tokens enable the holder to participate in network governance via voting.

- Advertisers use BBS tokens to buy ad space on different BBSes.
- Royalties from revenues are paid to developers, operators and BBS owners in BBS tokens.
- BBS token holders can vote on governance proposals concerning:
  - Beneficiaries of newly issued BBS as well as BBS burning policies
  - Network upgrades and project funding
  - BBS interoperability standards and integrations - enabling all BBSs to function as a single network
- BBS holders can choose to lock their tokens for up to multiple years in order to:
  - Boost their DAO voting power (given their commitment to hold BBS tokens for the long term)
  - Earn fees from trades on the BBS-BNT liquidity pool (with no impermanent loss)
  - Earn staking rewards, also boosted by longer lockup periods

## BBS Token Distribution

The BBS tokens are distributed as follows:

- 50% - Engagement Mining (Explained Below)
- 13% - Liquidity Mining & Staking Rewards
- 17% - Initial Capital Providers
- 10% - Long Term Development and Operations Budget (Reserve)
- 10% - Founding Team

## Engagement Mining

In order to bootstrap the BBS network, 50% of the BBS tokens will be distributed over multiple years to BBSes as ad revenues, based on the user-engagement they generate relative to the rest of the network on each day.

### Social Capital

Members of the BBS system are encouraged to publicly link their BBS account to their existing social accounts from YouTube, Facebook, Twitter, Reddit, and other popular platforms. Daily bonus amounts are based on the member accounts' *Social Capital* (representing the members' followers, friends, karma, etc. in the different networks) in order to attract high-profile members as well as to prevent fraud.

## Measuring Engagement

The engagement is measured using post impressions by registered members. The primary reason is to prevent fraud, as registered members are authenticated and their social capital can be monitored to detect anomalies.

## Distribution Distribution Logic

The DAO may set a different CPM for any specific BBS category, language or other parameters. The CPM is the BBS token amount paid for 1,000 registered members' post impression. The CPM rates would increase or decrease in order to hit the BBS token daily engagement-mining distribution targets.

## Engagement Mining Fraud Prevention

A BBS Blacklist is used by the DAO (BBS Network Governance) to deter any attempts to fraudulently gain BBS tokens from the initial distribution by faking user activity.

BBS tokens can be earned through engagement mining as soon as the BBS Network is launched. For a BBS to participate in engagement mining

- The BBS has to hit a minimum number of posts per day, for a set period (e.g. a week). This ensures that only active BBSes would require a review.
- An additional period (e.g. another week) has passed since the BBS has reached the previous threshold - so that the community would be given a chance to review the new BBS before it becomes an official engagement-mining beneficiary.

The specific periods and thresholds are set via the DAO voting process to make sure that eligible BBSs can be realistically reviewed by the community prior to collecting their mined BBS tokens.

Through the governance system, BBSs can be added to or removed from the blacklist. Blacklisted BBSs are simply ignored in the daily token allocation process.

This mechanic incentivizes existing BBS owners to review, detect and report any fraudulent activity sooner rather than later, for each day it continues is a day they are directly harmed, despite the fraudster ultimately being stripped of their earnings.

Lastly, the BBS DAO uses the BBS tokens to purchase ad space from the BBSes, at a price-per-impression set by the DAO. The data collected through those campaigns (CTR, conversion rate, etc) would enable transparent monitoring of the actual volume and nature of participating BBS's user traffic.

## Existing Technology

deWeb LTD has been building the BBS software, which is currently in beta release. deWeb has successfully implemented the following components:

- deWeb framework:
  - Distributed Sign-in (using email/google/facebook/twitter/github)
    - Recoverable passwords - essential and non-trivial technology for consumer applications on blockchain
  - User wallets, deposits, withdrawals, transfers, and swaps of CTs, BBS and other tokens, across multiple blockchains.
    - Integrated credit-card on/off-ramping (Moonpay/Elastium/others)
  - Royalty Distribution Engine - allowing for seamless, instant, trustless and transparent collaboration and settlement between ecosystem stakeholders (developers, operators and BBS owners).
- BBS
  - User-generated message-boards (similar in nature to “subreddits”)
  - Global feed of all sub message-boards
  - Integrated Medium-style editor for post publishers
  - Comments and replies with user reactions
  - In-app/Email notifications
  - NFT buying and banner setting
  - Member profiles
  - User Bonuses (For joining, linking accounts and daily activity)
  - Internal Ad Server
- 3rd-party application support - seamless and streamlined to allow for the developer ecosystem to quickly mature and create/receive value.

## Key Advantages of the BBS Network Model

- BBS is a fully decentralized Reddit. Anyone can be a developer, an operator, a BBS owner or user.
- Unlike today's popular platforms, a BBS owner has a direct relationship with their audience, meaning they have access to their contact information, and have ultimate control over the audience UX, through rich admin configurations, choice of operators and autonomy in terms of service (e.g. one board owner may allow profanity while another prohibits and removes it, more on this below).
- The generated revenue is shared between the ecosystem participants in a fully automatic, transparent, and market-driven manner. Growth is constantly incentivized as a win-win for users, creators, advertisers and curators.
- Decentralized content policies - While most users would prefer that some types of content be banned, allowing this power to a single, central entity proves to be highly problematic. In the BBS model, each owner is responsible for the removal policy of their

own BBS, and users can switch to a new home BBS if they are not happy with their current BBS content and moderation policies.

- The post price-discovery process (enabled by buying and selling them as NFTs) provides a drastically more robust solution for content curation. Today's leading services rely on user reactions (Reddit up/down votes, Facebook likes) that are easy to manipulate covertly using bot-nets. However, it is virtually impossible, and surely more expensive, to secretly manipulate a curation system that is based on bidding using a traceable cryptocurrency, stored in accounts that are publicly linked to users' social credentials with an immutable record of all their curation activity.
- It is very easy for developers to build new modules that seamlessly integrate to any BBS (e.g. a module enabling IPFS-based video hosting). These modules can be hosted on their own custom servers and can be added to any BBS at the owner's discretion through simple configurations and market driven revenue sharing.

## DAO Launch

- The BBS Network DAO will be launched by BBS Switzerland AG - A fully owned subsidiary of deWeb LTD.
- deWeb will sign a license agreement with BBS Switzerland for the product's source code which may be assigned to 3rd parties through a BBS network DAO governance decision.
- Initially - BBS network data (users, posts, etc.) will be stored on the EOS blockchain, given its low cost and high speed.
  - A bridge for the BBS token will be deployed between Ethereum and EOS.
  - The bridge will enable locking BBS tokens on Ethereum, using them on EOS, and redeeming them back on Ethereum.
  - An oracle feed for the BBS:USD price will be deployed on EOS in order to enable conversions between BBS and any CT at market values.
- A novel liquidity-mining program, which features impermanent-loss insurance, is being considered together with Bancor.

# Homage to an Emergent Space: Our Internet

From Wikipedia:

A **bulletin board system** or **BBS** (also called *Computer Bulletin Board Service*, *CBBS*) is a *computer server* running *software* ... Once logged in, the user can perform functions such as .. reading news and bulletins, and exchanging messages with other users through public message boards and sometimes via direct chatting. In the early 1980s, message networks such as *FidoNet* sprang up to provide services such as *NetMail*, which is similar to *email*.

