

Hey, I am Yelan, a web3 builder and crypto veteran, fully occupied onchain and keep building web3 projects since 2019. Our Team's been following up Decentralized Social Media for a long time. And today we'd like to introduce something exciting and innovative, called DeSoda. We've been thinking about the ideas for months.

Here is what we're building: [Desoda](#), Focus on releasing Web3 Social Data interoperation potential

whitepaper: <https://docsend.com/view/cfr3v3twgjmvihm6>

## The Vision

DeSoda aims to provide a highly adaptable execution layer for all Web3 Social Media, fully unleashing the interoperability potential of Web3 Social Data. Meanwhile, with the optimistic coprocessor as solution, DeSoda will become the cross-protocol router of all Web3 Social Media, and any execution layer can easily access Web3 social data through DeSoda.

## Market Opportunity

More and more Web3 Social Media has been widely adopted within these days. Among them, Farcaster has achieved rapid growth in a short period of time with its excellent product design. According to Dune Analytics, as of June 19, 2024, the total number of Farcaster users has reached 520,340, and the 7-day average DAU exceeds 57k... These data are exciting and prove that users recognize their products. But at the same time, we also see some room for optimization.

## Existing Problems on Farcaster

### Centralized Risks

Farcaster Hubs manages most of the users' social data. However, this distributed system lacks an effective incentive mechanism for Hub operators and is therefore subject to the risk of centralization, namely the possibility of data monopoly and malicious tampering by oligopolistic nodes.

### Poor interoperability

Since Farcaster Hubs does not provide a trustless execution environment, DApp developers who want to innovate around these social data usually have to choose centralized technical solutions with high trust bootstrap costs, which leads to extremely poor social data interoperability.

### Isolated social data

With the development of Web3 Social Media, DApps distributed in other blockchain systems have the need to use users' Web3 social data in their own chains, such as for on-chain identity authentication or the introduction of SocialFi scenarios. This has extremely high costs and lacks effective solutions.

## The Solution

### Soda Layer

A decentralized execution layer designed to unlock the interoperability of Farcaster social graph data, Soda Layer.

### Soda Coprocessor

An optimistic coprocessor solution for Web3 Social Media named, Soda coprocessor.

### Soda Layer

- A decentralized trustless execution layer based on EIGEN Staking and compatible with farcaster social data

Soda Layer provides Web3 builders a classic Blockchain + VM execution layer to build DApps, and can easily access farcaster's social graph data in a VM environment. Before Soda Layer, these data were stored in off-chain Hubs. At the same time, Soda Layer uses the most advanced Eigen Staking AVS as the system consensus module, making full use of EigenLayer's powerful compatibility with Intersubjective digital tasks, giving the protocol unparalleled security.

- EigenLayer AVS - Guaranteed safety

Soda Layer is designed based on Eigenlayer's latest EIGEN Staking AVS, which brings unparalleled security to Soda Layer while reducing the trust bootstrapping cost at the beginning of the protocol.

- EVM Compatibility - Liberating Farcaster Social Data Interoperability

Soda Layer provides developers an EVM-compatible execution environment, allowing them to easily interact with Farcaster social data in smart contracts. Before the Soda Layer, this data was maintained by off-chain Hubs, greatly unleashing the

interoperability potential of Farcaster social data.

- Traceable Historical data – Farcaster's Social Data availability

In SodaLayer, Farcaster social data is managed through a chain data structure, making the data traceable. Combined with the security brought by EigenLayer AVS, the availability of this data is guaranteed. This is not possible in the original Hubs architecture. Therefore, Soda Layer can become Farcaster's trusted DA layer.

- Token economic model - improving the decentralization of Farcaster Hubs

We know that operating a Farcaster Hub does not bring any benefits so far, which may reduce its decentralization. Soda Layer designs a token economic model with dynamic release and flywheel effect, so that the EIGEN Staking Operator who honestly maintains AVS can receive rewards in proportion, thus improving the degree of decentralization.

## DeSoda system Architecture

Soda Layer AVS is composed of six core modules. Web3 developers can interact with Farcaster Social Data directly at a smart contract level.

## A quick example on how Soda Layer-based DApp works?

Take the simplest case, assuming that a Web3 project wants to conduct a marketing campaign. Users who follow the official farcaster account within a specified period of time will receive X Token rewards. The number of rewards is calculated based on the number of followers of the user.

## Soda Layer Use Cases

### Social Fi

The most likely scenario in the Web3 Social track has always been the SocialFi products. Before the Soda Layer, since farcaster only managed some key identity information on the chain, the user's social graph information was not on the chain, there were relatively large restrictions on the SocialFi scenario based on farcaster. Through Soda Layer, DApp developers can easily use social graph information to unlock more SocialFi scenarios.

### Targeted Marketing

Farcaster is getting more and more popular in the crypto world, the marketing focus of Web3 projects has gradually shifted to farcaster, so it is considered interesting to design some attractive marketing activities around farcaster. In the past, the marketing activities of many projects were criticized for centralization. Through Soda Layer, designing marketing activities through smart contracts will greatly enhance credibility.

### Credit Defi

There is a major sub-segment in the DeFi scenario that has always been in the spotlight, that is, credit-derived DeFi, such as credit loans. We know that credit in contemporary society is composed of many aspects. In addition to the financial situation, your social relationship is also a very important evaluation factor. For example, a KOL with 1 million fans and huge influence has a relatively higher cost of doing evil, so he has stronger credit. In Soda Layer, since social graph information can be easily accessed, it will be more helpful to build credit-derived DeFi products.

### DAO

As a social media platform, a large number of social relationships will be generated in Farcaster, which may lead to the emergence of more and more DAOs. Naturally, there will be widespread demand for management tools around DAOs, such as DAO salary management, reputation system management, etc. These will be easily implemented on the Soda Layer, and can be connected through social graph information to unlock more functions and enrich more scenarios.

## Soda Coprocessor

- An optimistic coprocessor that breaks the information silos of Web3 Social Media

Soda coprocessor is the second product of DeSoda, which implements an optimistic coprocessor based on Eigen Staking. With Soda coprocessor, any DApp on the chain can asynchronously retrieve the social network data of users on a certain Web3 Social Media. In this process, Soda coprocessor will become the relay of Web3 social data, thus bringing more "DeSocial +" application scenarios.

### Roadmap

Background Research, mechanism design, the protocol deduction and simulations

MVP product development

Soda Layer Testnet launch

## Summary

In this paper, we introduced DeSoda, a decentralized execution layer, named Soda Layer, that aims to unlock the interactivity of farcaster social graph data, and an optimistic coprocessor solution for Web3 Social Media named Soda coprocessor. First, Soda Layer provides Web3 application developers with a classic Blockchain + VM execution layer to build DApps, and can easily access farcaster social graph data in a VM environment. Before Soda Layer, these data were stored by off-chain Hubs. At the same time, Soda Layer uses the most advanced Eigen Staking AVS as the system consensus module, making full use of EigenLayer's powerful compatibility with Intersubjective digital tasks, giving the protocol unparalleled security. Secondly, through the Soda coprocessor, Dapps in any chain can obtain historical social graph data in any Web3 Social Media at a low cost through this decentralized solution, thus bringing more "DeSocial +" application scenarios.