

# **The Autumn Decentralized Finance System**

Whitepaper

[autumn.finance](https://autumn.finance)

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# I. The Autumn Decentralized Finance System

The Autumn Decentralized Finance System (also known as Autumn) comprises groups of decentralized finance applications that organically combines, supports. It uses each other (also known as aApps) to build a prosperous, sustainable and integrated decentralized finance system.

The opinion is inspired initially by well-known successfully decentralized finance projects on Ethereum and improved by emphasizing integration and availability, which acquires a low-gas block-chain. Equivalently, there are more opportunities due to the lack of implemented infrastructures.

Autumn's most concerning aspect is around the creative and on-edge areas, especially for other new-age chains. The initial few ideas are the algorithm stablecoin (or other decentralized stablecoins), the aggregator, the oracle and the synthetic assets.

These three pieces are partners to build the basis layer of Autumn in which the stablecoin is the most crucial entrance of the synthetic assets and other infrastructures. Simultaneously, it needs support from the price oracle, and the oracle provides a reliable information source for both of them.

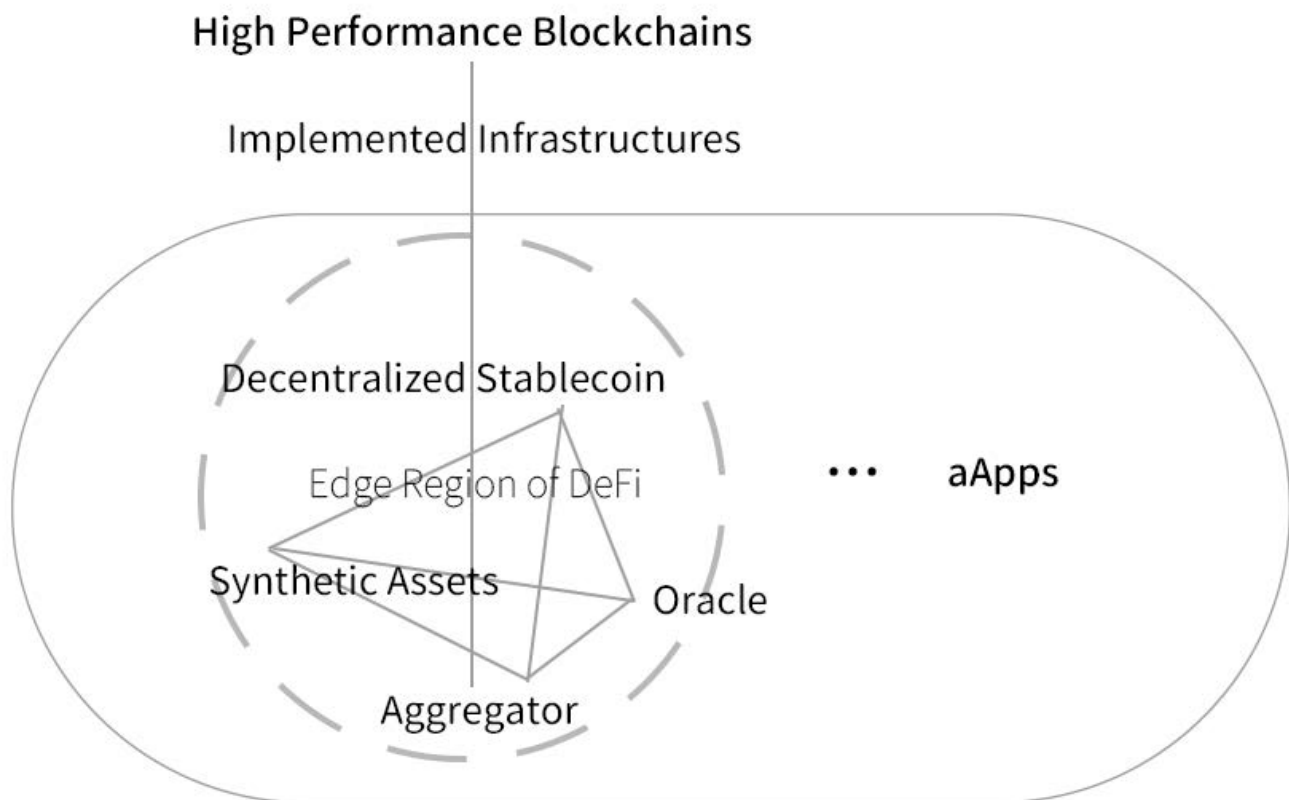


Figure I. The Autumn Decentralized Finance System

## II. The aUSD Stablecoin

aUSD Stablecoin is one of the most important parts of the Autumn system. It is a weak-decentralized stablecoin issued by a smart contract on the chain and can get rid of the worrying centralized risks by collateralized with multiple trusted stablecoins. The generation of aUSD is by both collateral assets and algorithm.

The collateral assets could also be earning with the aggregator modal. Since the collateral assets are stablecoins, it could also provide a bridge to exchange with different stablecoins at a low fee with oracle to control the risks — Togetherly, to maximize the collateral assets' utility.

### 1. Delivering the collateral assets to GCDP

The collateral assets of aUSD are centralized stablecoins. The users need equivalent collateral assets either way prior they generate aUSD and deliver them to the aUSD Global Collateralized Debt Position (GCDP) smart contract.

### 2. Generating aUSD through GCDP

The GCDP will calculate the amount of aUSD the user is eligible to generate. Meanwhile, the same amount of debt will be created, and the collateral asset is locked up and not available for redemption until the debt is repaid. The locked assets are adjusted to trusted places for earning with no risks with integration with the earn aggregator.

### 4. Redeeming the collateral

To redeem the collateral, the debt must be repaid with aUSD and a stability fee paid with the Autumn platform token, ATM. Finally, GCDP debt holders can send a transaction to GCDP to retrieve all collateral assets.

### III. Aggregator

An aggregator is a smart contract capable of receiving assets and investing them intelligently with trusted platforms and products without risks. The aggregator on Autumn comprises three parts, Manager, Delegator and ESP (External Service Provider), where the Manager is capable of adjusting assets to the highest profit strategy groups, and the delegator is capable of managing the deposit and profit distributions. The ESP is actually not a part of Autumn, and they are external contracts that are supposed to earn.



Figure II. The Aggregator Working Flows

### IV. Oracle and Synthetic Assets

The oracle is capable of retrieving data from the real world and deliver to smart contracts. It will be used to feedback the actual price of centralized stablecoins and provide price feeds for synthetic assets to trace the assets' real price. Because that oracle is vital for synthetic assets, Autumn's synthetic assets will be available until the oracle is robust enough.

## V. Autumn System Governance

Autumn system governance (also known as DAO) relies mainly on ATM holders. While ATM holders earn revenue from the stability fees and exchange fees of aUSD and other parts of Autumn, they are also responsible for the governance of the Autumn system, which is done through selecting valid proposals by ATM voters.

ATM holder can vote and select the contract he/she supports among all the smart contracts that modify the system parameters. The contract with the highest number of votes becomes a valid proposal and has the system permit to modify variables of Autumn internal system governance as per the established logic. Valid contract proposals can be in two forms:

### 1. Single action proposal contract

Single action proposal contracts are proposals that can only be executed after gaining the root access, and after execution immediately applies its changes to the variables of internal system governance. The single action proposal will delete itself and become invalid. It's easy to use but not flexible. This type of proposal will be adopted in the early stage of the system.

### 2. Delegating Proposal Contracts

Delegating Proposal Contracts are proposals that continuously utilize their root access through second layer governance logic. The second layer governance logic can be relatively simple,

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