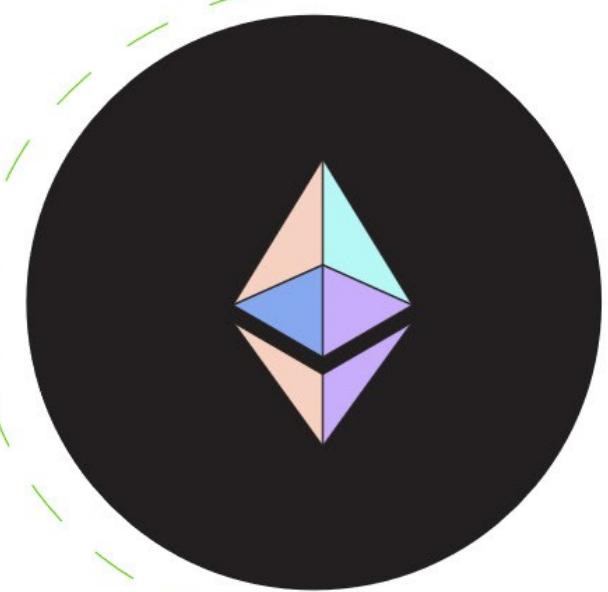
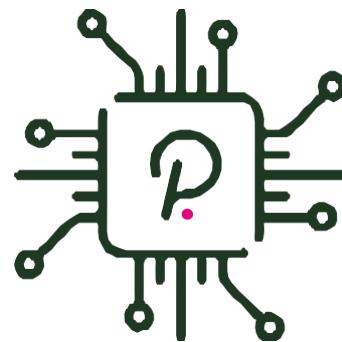


clover

Litepaper



About Clover

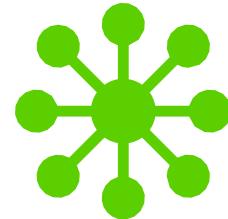


Clover is building a foundation layer for DeFi applications to seamlessly operate. We aim to reduce the development threshold for upper-layer applications, facilitate a gasless transaction layer to simplify user experience for non-crypto users, and provide a wide range of developer tools from identity-based scripting capabilities to built-in cross-chain interoperability.

Clover will put together a large user base and different projects into a one-stop open and integrated financial service platform on Polkadot, using the Substrate framework. We will compete to join as a parachain for Polkadot to achieve a high level of interoperability, and to become a digital finance portal and DeFi service provider on Polkadot.

Apart from the foundational layer itself, Clover is building various cross-chain wallet implementations from desktop to mobile, allowing users to interact with DeFi applications from various front ends.

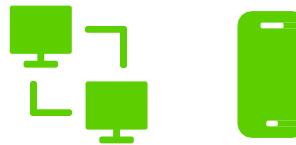
Clover's competitive edge



Clover provides a perfect gateway to DeFi for everyone including those who are completely new to DeFi, especially those with no prior exposure to cryptocurrencies. We reinvented feeconomics to simplify user experience for participating in DeFi applications which is currently a major hurdle in user onboarding for dApps since people with no associated ETH are unable to send transactions directly on the Ethereum network due to their lack of ability to pay for gas, which forces them to purchase ether before they can start interacting with the network.

On the other hand, Clover has introduced an identity-based user classification module for developers to customize their contract flows respective to their own set of specifications. Identifying network participants ensures long term user engagement across a wide range of DeFi applications that are deployed and operating on Clover.

Clover's innovation

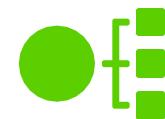


Clover has built an EVM compatible infrastructure to easily migrate existing dApps. Utilizing our SPV chain simulation technology enabling trustless two-way pegs across PoW and PoS networks, Clover seamlessly bridges Ethereum and Polkadot ecosystems in one unified place.

In addition to building an interoperable environment for various assets to trustlessly operate. Clover has redesigned the networking layer to allow relayers to act on behalf of senders where relayers can cover gas price in the base currency, and receive compensation in the denominated asset. This is so that end-users can

seamlessly transact their tokens by covering fees with the same token from the amount they transact, without depending on the base currency, which we believe makes the overall UX better at a significant margin. Simplifying user experience can create the potential for a very exciting future in which Clover can grow and compete, and can reach its goal of becoming the best possible DeFi platform for all.

Clover's innovation



We re-parameterized the gas distribution model to direct fees to both network maintainers and dApp builders. Clover will distribute CLV rewards from the community pool where community members can vote on what dApps to reward via the governance module. Incentivizing third party developers and commons, boosts external dApp development which ultimately enlarges the Clover and Polkadot DeFi ecosystems altogether. This is consistent with Clover's properties of being a decentralized operating system which does not touch the inflation schedule or alter the scarcity of CLV, but effectively increases the security of smart contracts against bugs and software vulnerabilities by enabling external development to be properly funded.

Token Usecase



Clover is powered by the native CLV utility token which serves as gas on the platform, similar to ETH. In our gasless transactions, the ERC tokens which are used for gas will be liquidated into CLV on the market.

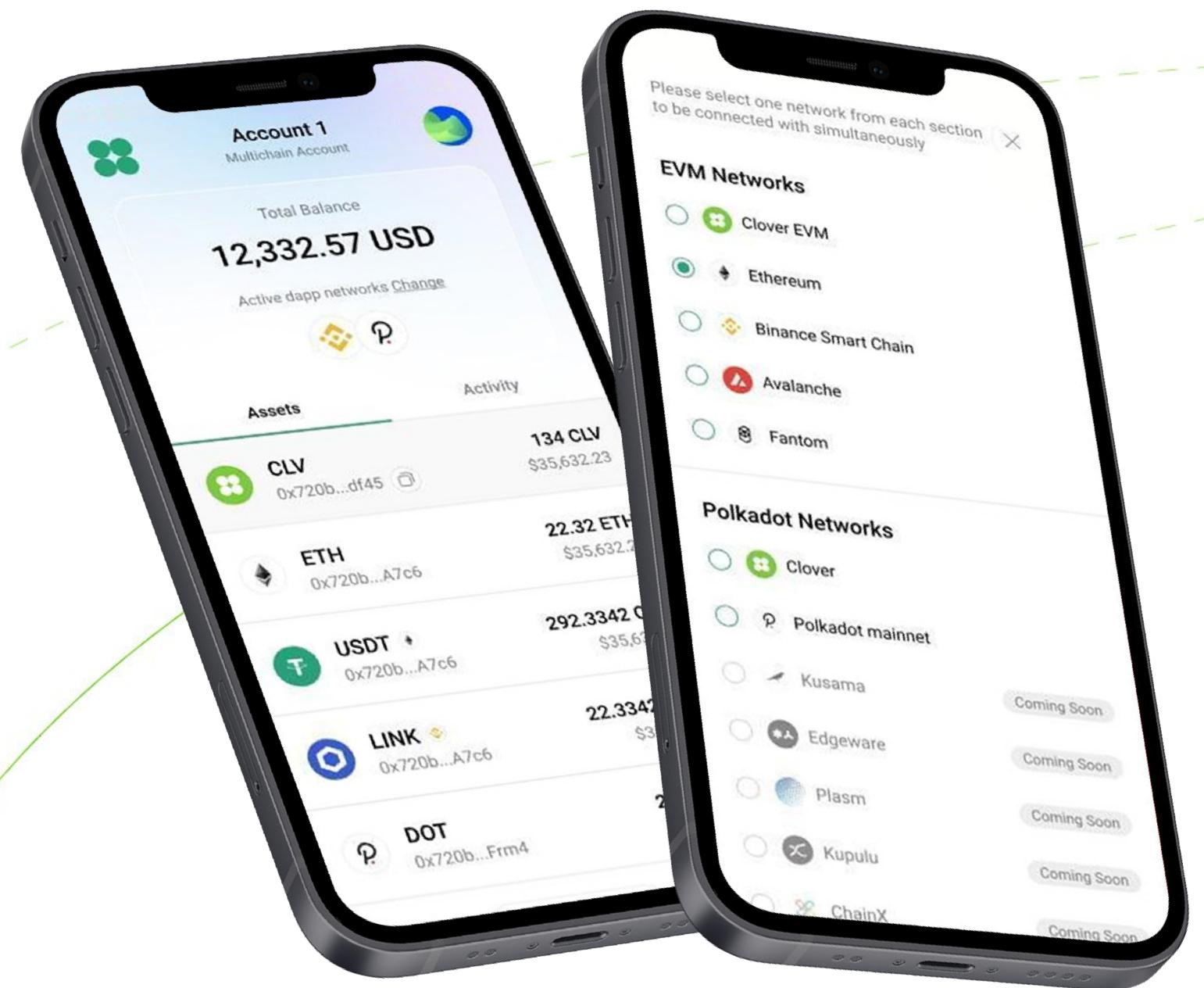
The Clover EVM is created to attract developers who will further drive adoption and platform fees.

CLV will also serve as a governance token of the platform, to participate in governance activities for a predetermined set of parameters.



Platform Review

Clover cross-chain wallet extension





Platform Review

Clover cross-chain blockchain explorer

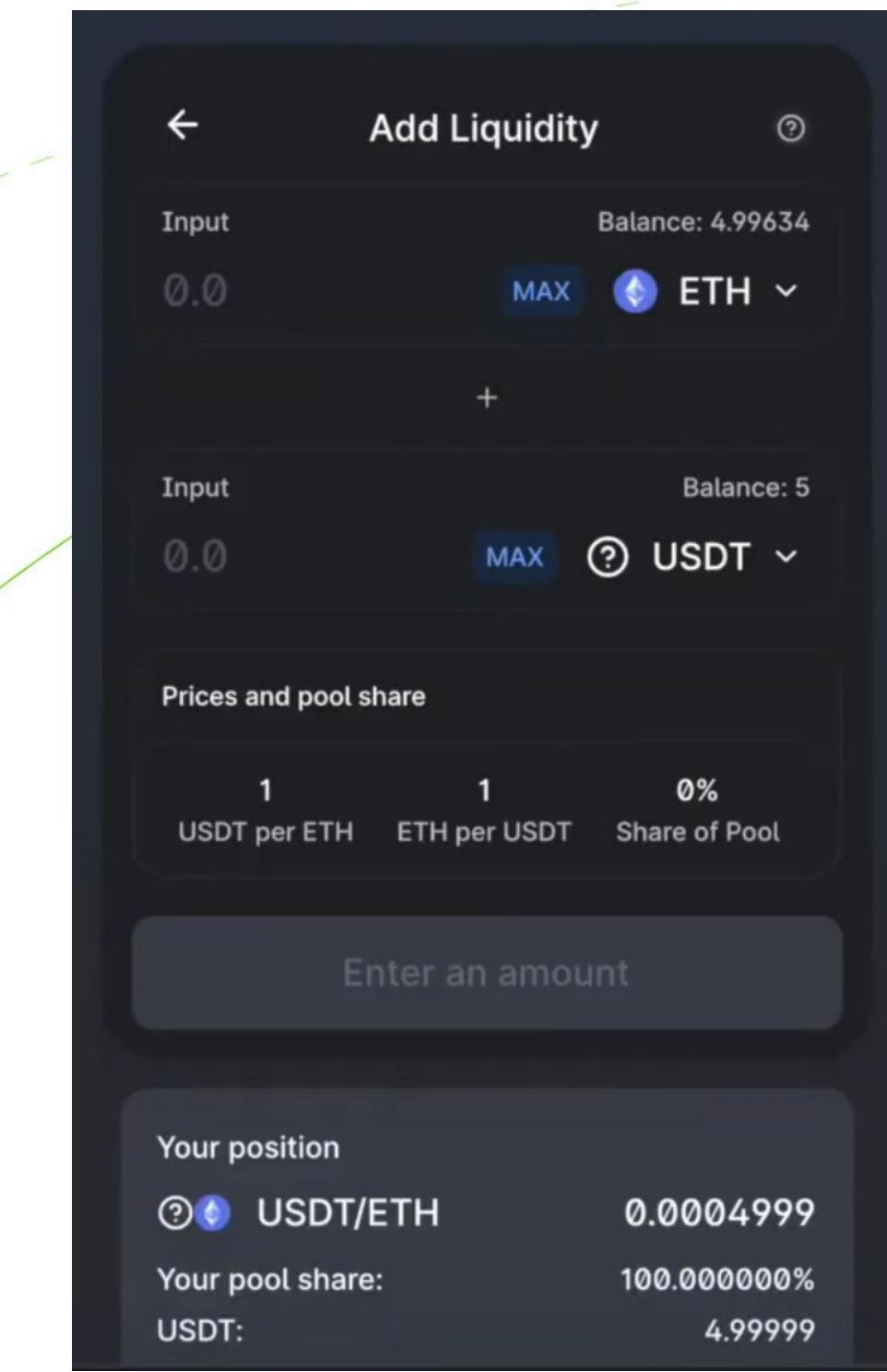
[GITHUB](#)

The image shows two screenshots of the Cloverscan platform. The left screenshot displays the homepage with a header 'Cloverscan' and a search bar. It features five key metrics: Ether Price (-6.31%), Transactions (204.05 M), Market Cap (\$ 25.205.25), Difficulty (2.250 TH), and Gas Price (20 Gwei). Below these are sections for 'Recent blocks' and 'Recent balance transfers', each listing several transactions with their respective block numbers, timestamps, and amounts in DOT, BTC, ETH, and CLV. The right screenshot shows a detailed view of a single transaction. The transaction is for Clover (CLV) and has a status of 'Success'. It occurred in Block #662767 on Dec 23, 2020, at 01:13:18 AM UTC. The transaction fee was 0.00945 CLV and the total value was 2,0525 CLV. The transaction details show multiple transfers between addresses, with amounts such as 1.05949 CLV, 0.35945 CLV, 0.2000 CLV, and 0.5000 CLV.



Platform Review

Clover cross-chain bridge





Platform Review

Clover cross-chain mobile wallet

The image displays three screenshots of the Clover cross-chain mobile wallet interface, arranged horizontally. A dashed green line curves from the top right towards the first screenshot, and another dashed green line curves from the bottom left towards the second screenshot.

Screenshot 1: Wallet Overview

This screenshot shows the main wallet interface for "Wallet 1". The total balance is listed as **12,332.57 USD**. Below this, the "Assets" section lists several cryptocurrencies with their amounts and addresses:

- ETH: 134 ETH, address 0x720b...df45, value \$35,632.23
- BTC: 22.32 BTC, address 0x720b...df45, value \$35,632.23
- DOT: 292.3342 DOT, address 0x720b...df45, value \$35,632.23
- CLV: 22.3342 CLV, address 0x720b...df45, value \$35,632.23
- BNB: 22.32 BNB, address 0x720b...df45, value \$35,632.23
- USDT: 22.32 USDT, address 0x720b...df45, value \$35,632.23

A "Add Token" button is located at the bottom of the assets list. At the very bottom of the screen are four navigation icons: Wallet, Activities, Dapps, and Settings.

Screenshot 2: Activity Log

This screenshot shows the activity log for "Wallet 1". It displays two recent transactions:

- Send ETH +**: Dec 31, 2020 • To: 0x720b...A7c6, -0 ETH, -\$0,00 USD
- Receive ETH +**: Dec 31, 2020 • From: 0x720b...A7c6, -0 ETH, -\$0,00 USD

Below the activity log are four navigation icons: Wallet, Activities, Dapps, and Settings.

Screenshot 3: Settings Screen

This screenshot shows the "Settings" screen. It lists "My Wallets" (Wallet 1, Wallet 2, Wallet 3, Wallet 4, Wallet 5) and provides options to "Change name" or "Reveal seed phrase" for each. The "Assets" section shows a balance of 1.3 and \$2,1. At the bottom are four navigation icons: Wallet, Activities, Dapps, and Settings.

Guides

Instructions for running a private testnet can be found here:



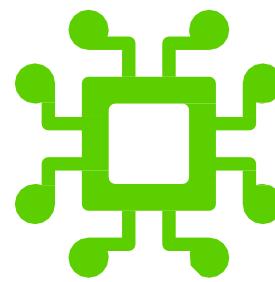
This guide outlines steps for connecting MetaMask to a self-contained Clover standalone node, to send tokens between accounts:



This guide walks through the process of creating and deploying a Solidity-based smart contracts on a local Clover node using the Remix IDE:



Relevant statistics



We are collaborating closely with the Web3 Foundation through their Bootcamp and with many of the Polkadot parachain projects. We plan to jointly hold/support hackathons with Polkadot, the Web3 foundation and their ecosystem projects as soon as the developer kits are ready in Q1 or Q2 2021.

We are currently live on public Testnet, with +20 uptime-running nodes across 4 continents. Our public testnet is currently capable of processing over 500 TPS. Transactions are well-distributed and validated in less than 10 seconds.



<https://clover.finance/>