Abstract. There are plenty of issues with existing DEXes and CEXes.
To begin with DEX, it is completely dependent on its protocols that allow only the transfer of related products like Uniswap, which helps only ERC20 tokens to be traded, which again depends on the kind of liquidity provided by both ends, whereas if that same token is supposed to be traded with ETH (the native token) no liquidity is required. Which makes it secure yet too funneled to be traded for profit, which is how an intrinsic value of a volatile token is calculated. Coming to CEX, they are not so secure, with no information on the tokens on-chain, but the ease to trade is very high, plus in recent times it's been observed that these exchanges work no different than a traditional bank, as the individual funds are still very much depended on the exchange's security. These problems have already made way for a new set of solutions known as Hybrid Exchange, which again becomes an ambiguous interpreted term, as it still keeps oscillating between security and decentralization. Realizing the above problems, Chai DEX keeps the very proper balance between the security & decentralization of a DEX plus making it as feasible as CEX. This document explores the new era of a Hybrid DEX via Chai DEX.

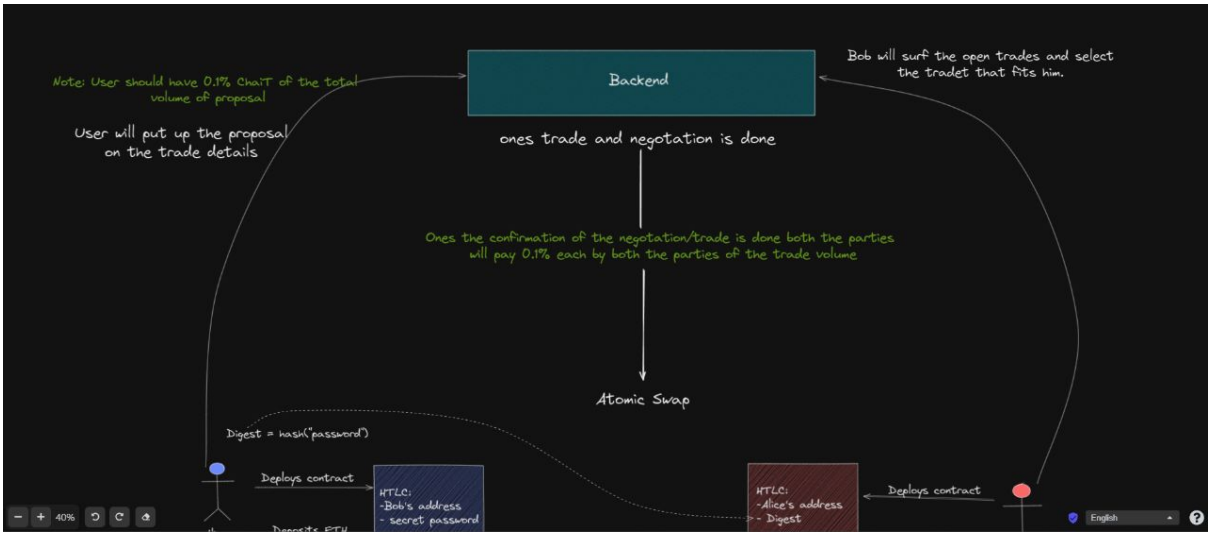
Introduction

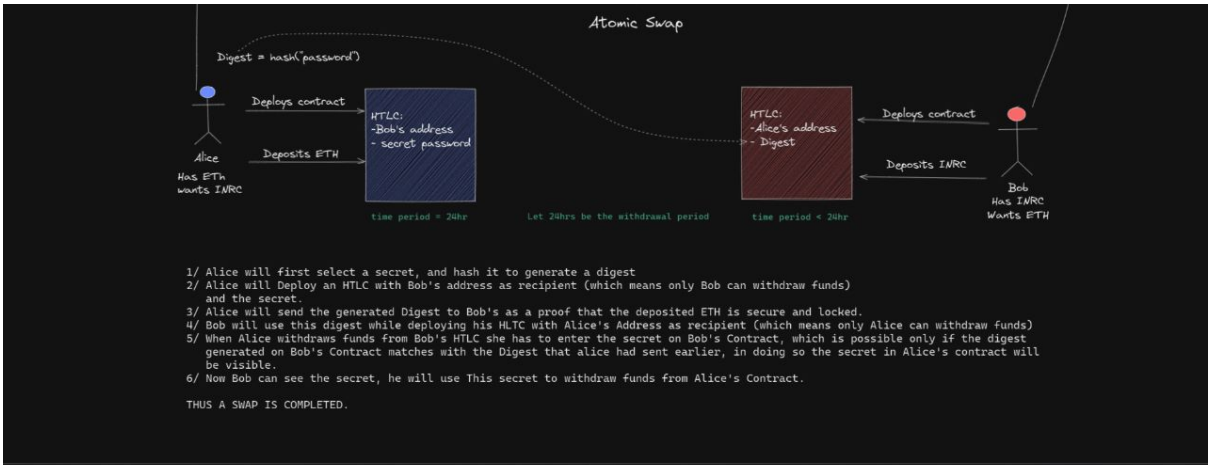
By definition, ChaiDEX is a P2P crypto assets options trading platform. It has the following helping modules enabling its functions (mention more about DEX and what the DEX does - which tokens are present, mention on which platform and why that platform, mention more about stablecoin INR
ChaiT - BRC20 - BRISE SmartContract,)
Which tokens can be traded,

1. ChaiDEX - A Decentralised Trading Platform
2. INRC - an Indian National Rupee-based (not backed) Stable Currency as a liquidation solution for the ecosystem
3. Chai-T - Governance token for voting, DEX fees & future add-ons for the platform
4. Chai Wallet - Multi-Chain, Non Custodial wallet

Chai DEX
ChaiDEX introduces and explores a new-age Hybrid Decentralised platform that enables decentralization, transparency, and ease of trading with different protocols in a very secure manner with the help of actual blockchain.
ChaiDEX uses the concept of Atomic Swap for a secure, faster, and reliable method for the transfer of transactions.
We have the product built on the bitgert blockchain hence gas fees involved with the transaction are very low.

a. Atomic Swapping





a. Platform features and architecture

ChaiDEX is a fully functional DEX to trade on any type of asset, which are represented in the supported blockchains - currently, BSC, Ethereum,Matic and Tron.
For ease of trading across the DEX we have introduced our stable coin INRC, the value which is derived and equated to INR (Indian National Rupee). Please note that the value is equated with INR and not backed.
Our stablecoin is backed with USDC.

To avoid tedious crypto conversions and keep an endless count of exchange value INRC is the solution for the trader. Following are the product features

A. ChaiDex Wallet

B. INRC - Native Stable Coin

C. ChaiT Token - Governance

D. P2P

The tokenomics is followed after the product features with an explanation of the community on our platform

.

Chai-T Token

a. Governance Overview

As ChaiDEX is decentralized & has diversified its governance it will use the ChaiDEX token (Chai-T) to grant voting power. Alignment between governance token holders and DEX stakeholders is crucial for successful decentralized governance, and Chai-T tokens are the catalyst to drive this alignment.

ChaiT token is an investment;

Contract Address

ChaiDEX contact address

Ethereum

Binance

Polygon

Bitgert

b. Supply and Distribution

When Chai-T was launched, inflation started as a constant for 1 Billion ChaiT per year. At the launch of the Chai-T system, however, a 10% burning mechanism was introduced: every year, the inflation should be adjusted to 10% by burning, with gradual steps every year starting one year after the launch of the new tokenomics system.

This means the final BAL supply will be about Chai-T 500 Million after 5 years of circulation

Distribution

Total Supply - 1 Billion Chai T

Buy Back and Burn - 10% per annum for 5 years

Total Lifetime supply - 500 Million Chai T

For investors and team:

1. Vesting Period - 4 year
2. Cliff Period - 1 year

ICO/IDO/With Public - 60%
Investors - 21%
Marketing (Airdrops, etc.)- 10%
Team & Advisors - 4%
Improvement protocol - 5%

APY Maths

The Liquidity pool will consist of USDC, USDT, and BUSD, but all of these will be converted to USDC which will be used to back our Stable Token INRC. Every transaction via the Chai DEX platform or using any of its Smart Contracts will attract a 0.1% gas fee. This Gas fee is further divided into two pools out of which one is the APY pool and the other is the Maintenance pool, 80% goes to APY & 20% to Maintenance.

Use Cases

There are two categories of users who can benefit from the ChaiDEX: liquidity providers - who participate or stake in the DEX where returns are expected maximum of up to 24% depending on the amount invested and market conditions.
The second are traders - who buy or sell the crypto/ assets on the open market.
Anyone can be a liquidity provider. For example:
Portfolio managers, and independent traders, who want to have controlled exposure to different crypto without complicated and expensive rebalancing
Investors who have various crypto tokens sitting idly in a wallet, and would like to put them to work earning passive income from fees
Traders can choose from pairing options, we offer the following pairs at present:
(INRC/ ETH ; INRC/ BNB; INRC/ USDC; INRC/ USDT; INRC/ BUSD) each presents a unique set of investment opportunities.
The interplay with these pairings, treasury pool volume & gas fees, and external prices (in case any) plays a catalyst and provides incentives to traders and maintains stable token ratios, which further helps to preserve the crypto asset or investment value for liquidity providers.

There are two main categories:

- Retail traders looking to exchange tokens at advantageous rates with less slippage
- Arbitrageurs who seek to benefit by balancing market inefficiencies between DEXs and CEXs as we are a hybrid dex we enable this very efficiently

Smart Contract & Security:

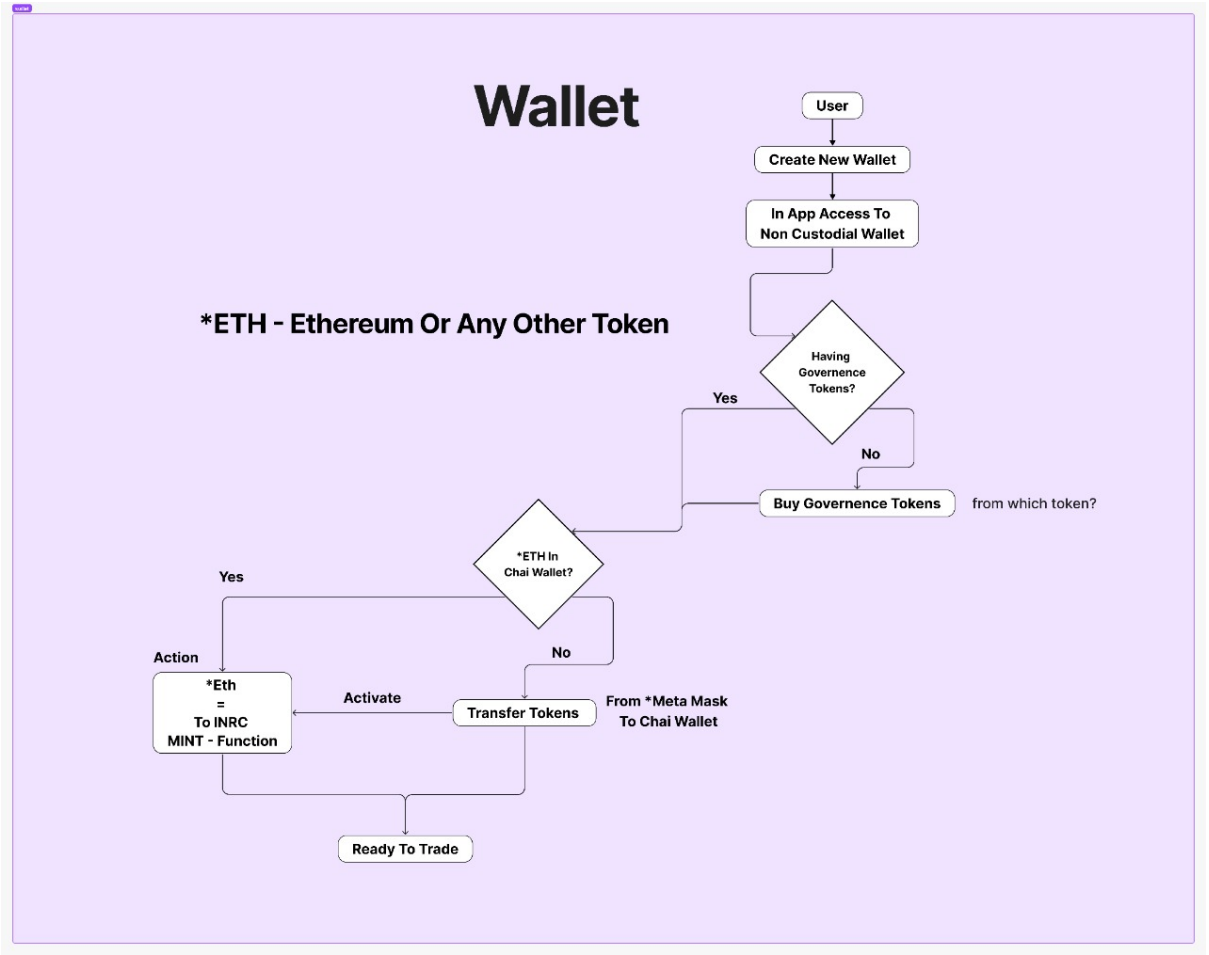
HTLC:

The smart contract is an upgradeable logic contract that caters to the storing of funds through deposits, withdrawals, and refunds. With respect to the architecture, the contract is deployed on different chains and has a unique TradeID and a passphrase that has to be passed in to the functions while calling any of them for either refund, deposit or withdrawals.

Now for a trade that involves trade-off of a native token and INRC, as any trades that happen in DeX happen against INRC only, hence, when a trade is matched through the backend and you have to deposit the amount, the respective chain of the native token is called and parameters involving a passphrase and trade Id is called. Now when the other party deposits bitgert chain, INRC exists here, and is called with the same tradeID but with a different passphrase set by this party. Hence once both funds are locked, in order to withdraw the required token, the passphrase corresponding to that trade id on that respective chain needs to be sent as a parameter which ensures the safety of transfers without the need for bridges or wrapped tokens as the passphrase saves all the funds in the respective chains. If the other party doesn't put in the amount within 24 hours, you can withdraw the amount as the chain is updated with the owner of those tokens and hence can transfer your tokens back.

Therefore, in order to access any funds out, only the required party will be able to do it as only the required party will get your passphrase.

Chai Wallet



Chai Wallet

With the concept of the multi-chain wallet, & non-custodial we have improved & upgraded the traditional DEX options for better security, and reliability and ensure no break of security or hacks on the platform.

Chai-wallet allows users to manage accounts and their keys in a variety of ways, *excluding hardware wallets (this feature will be released in next update)*, while isolating them from the site context

This is a great security improvement over storing the user keys on a single central server, or even in local storage, which can allow for mass account thefts

(Under Chai Wallet) Currently, the wallet can function on Ethereum (the most trusted), Binance Smart Chain (most popular among retail users), Polygon (most popular layer 2 solutions), and Bitgert Chain(developer friendly & secure blockchain)

Brief about Non custodial nature of Chai Wallet & its Multi Chain Functionality / Blockchain Connection

Non-custodial crypto wallets give you complete control of your keys and therefore your

funds, removes the involvement of third party to manage your funds which adds more security option for your funds.
Users can generate key-pairs with the Chai wallet, as our wallets are integrated with other chains such as Ethereum, Binance, Polygon, Tron and in future we will be present on all EVM enabled chains, this eliminates us for the need of the bridging solution.

How to buy governance - USDT Can be imported from metmask wallet to our wallet
1. Chai T is the governance token for the DEX, ChaiT can be bought using USDT.
As we are multi-chain & non-custodial wallet, USDT can be imported from Metamask wallet to Chai wallet to purchase the governance token, this provides the ease for users for trading.
2. ChaiT token is essential token as it will allow users to trade and all gas fees on the network will be paid using the ChaiT
2. New Users can downloads/ creates the wallet, which provides non-custodial in-app access.

Case 1: A user has governance token and eth in the Chai Wallet
A. He trader uses pairing available INRC/ ETH; INRC/ BNB; INRC/MATIC , INRC/TRON
B. Pairing allows to mint equivalent amount of INRC against the used crypto.
C. Trading begins

Case 2: A user doesnt have governance token and but has .eth in the Chai Wallet
A. USDT can be imported from Metamask wallet to Chai wallet to purchase the governance token
B. He trader uses pairing available INRC/ ETH; INRC/ BNB; INRC/MATIC , INRC/TRON
C. Pairing allows to mint equivalent amount of INRC against the used crypto.
D. Trading begins

Wallet Tech Overview
React is used to develop the wallet and Redux is used for the state management

Why we are thesolution -
It’s an EVM enabled Wallet that allows to access multiple chains, this ends the need to transfer wrapped tokens. Though ERC 20 enabled wrapped tokens can still be purchased/traded using Chai Wallet. The tokens can be purchased straight away from the respective chains and be traded on Chai DEX platform.