

GIV - Draft white paper

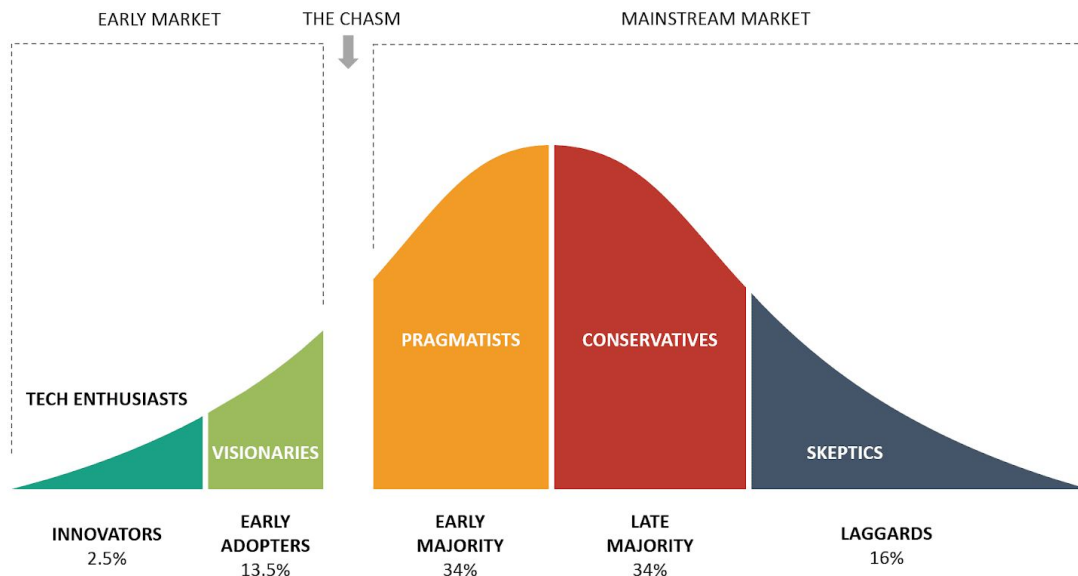


Introduction

It is becoming clear that the main application of blockchain technology will be in decentralized finance (DeFi).

DeFi opens doors to a globally interconnected alternative to every financial service you use today — savings, loans, trading, insurance and more — accessible to anyone in the world with a smartphone and internet connection.

However, even DeFi will not get very far without mass adoption. At this point, DeFi is barely in the early adopters stage on the technology adoption curve.



So how do we cross the chasm? How do we onboard the mainstream market over just the tech enthusiasts?

There is one key component missing in DeFi that is blocking mass adoption. We must provide **easy, simple, and inclusive access for everyone**.

This is where CryptoLocally comes in. CryptoLocally bridges the gap between the ordinary person and the world of DeFi. CryptoLocally will break down the barrier between mass adoption and blockchain technology.

The problem

The majority of people with access to traditional financial services are often subject to the archaic banking bureaucracy, a system that prioritises the wealthy.

Access to products such as loans, insurance, investment vehicles and financial markets are littered with hurdles. This is for those who already have bank accounts.

However, there are over 2.5bn people in the world that have absolutely no access to financial services.

DeFi is expected to democratize financial services. Unfortunately, at this time, access to DeFi and digital assets in general remains fragmented, complicated, expensive and slow. For the unbanked or the millions of people living in emerging economies, or people who live in regions with restricted currencies, this is sometimes outright impossible.

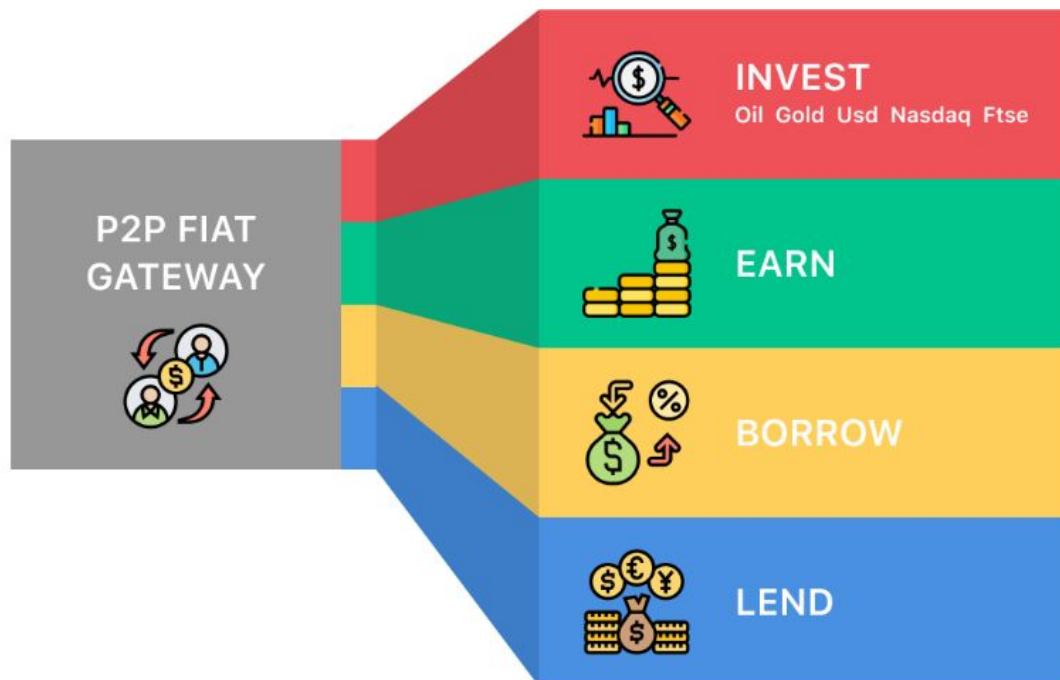
CryptoLocally's all-in-one solution

CryptoLocally is creating the easiest and most accessible gateway to DeFi and its tools for everyone. Our goal is to empower all people with the tools to take control of their financial future. Through CryptoLocally, DeFi will gain mass adoption.

By eliminating the middleman, CryptoLocally enables people to bypass the onerous fees, interest rates, and other restrictions traditional financial institutions impose.

CryptoLocally is already a trusted provider of a peer-to-peer (P2P) digital asset marketplace with no middle-man; it offers out-of-band payment methods and a revolutionary smart contract escrow.

People can meet in person, send a bank transfer, or use KakaoPay, AliPay, WeChat Pay, Venmo and more - all of this, in a currency the buyer and the seller decide to use. All the while, with their digital assets secured in an escrow that is *safer than a traditional bank account*.



Empowering all people with the tools to take control of their financial future.

Visit the marketplace here: www.cryptolocally.com

DeFi made simple and accessible

It's easy to earn passive interest by supplying tokens to lending markets like Compound, Aave, Fulcrum, and Dydx. But earning maximum yield on DeFi is much more complex now. Yield farming is no longer only about yield switching tokens, trading fees, and incentivized liquidity. Due to the incentivized liquidity wars, a current yield farming strategy may include a myriad of steps that involve several different tokens and smart contracts.

This will make no sense to typical users. We, as humans, prefer to click one button over researching for hours. CryptoLocally will make this possible.

On-chain smart contract oracles

The first step to solving this problem is to utilize on-chain price and interest rate oracles in order to be able to gather accurate data that is updated each block.

Utilizing a smart contract based algorithm for maximum yield

The next step is to build a smart contract based algorithm that uses the data to switch between yield farming strategies. The contract must be generalized so that strategies can be added over time in order to account for new opportunities in a quickly evolving market.

With this solution, users don't have to learn and implement a strategy themselves. They simply click a button, and the smart contract yields optimal interest for them.

Minimizing Costs

Another advantage of this solution is that it is extremely cost efficient. Imagine a yield farming strategy with S steps. If you simply gave this strategy to who U users wants to invest N DAI each, they will likely have to spend at least $S * 2$ transactions worth of gas fees. Now assume that the average transaction fee across these steps is P . If they all use this solution independently as described, we can conclude the following:

$$\text{Aggregate Gas Spending} = 2USP$$

$$\text{Gas Fee Percentage of Volume} = \left(\frac{2SP}{N}\right) * 100$$

Let us give real number values to the above equations through a realistic example. The *mint* function for cDAI costs approximately 330,000 gas. The current standard gas price is approximately 70 Gwei. Therefore, the transaction costs 0.0231 ETH or

\$7.62 when we assume 1 Ethereum = 330 USD. So in this example, $P = 7.62$. Let's assume we have 10,000 users on CryptoLocally that want to use this yield farming strategy with 5 steps. Also assume that each of these users are investing 1,000 DAI, and to simplify our calculations, 1 DAI = 1 USD.

Then,

$$\text{Aggregate Gas Spending} = 2 * 10,000 * 5 * 7.62 = \$762,000$$

$$\text{Gas Fee Percentage of Volume} = \left(\frac{2SP}{N}\right) * 100 = \left(\frac{2 * 5 * 7.62}{1000}\right) * 100 = 7.62\%$$

From the above example, it is clear that yield farming is extremely expensive and not resource efficient when done in this way. It also does not have as much upside for those who want to yield farm with a smaller budget (a lower N).

However, with our solution, the smart contract algorithm deploys the optimal strategy for all of the users in fewer bulk transactions. The only addition is that there is one step in funding tokens to the smart contract and then claiming those tokens with accrued interest. This makes the aggregate gas spending and gas fee percentage of volume look like this:

$$\text{Aggregate Gas Spending} = 2SP + 2UP = 2P(S + U)$$

$$\text{Gas Fee Percentage of Volume} = \left(\frac{2P(S+U)}{UN}\right) * 100$$

Using the numbers from the example above, our solution gives us the following:

$$\text{Aggregate Gas Spending} = 2 * 7.62 * (5 + 10,000) = \$152,476.20$$

$$\text{Gas Fee Percentage of Volume} = \left(\frac{2P(S+U)}{UN}\right) * 100 = \left(\frac{2 * 7.62 * (5 + 10,000)}{10,000 * 1,000}\right) * 100 = 1.52\%$$

In this example, our solution decreases aggregate gas spending and gas fee percentage of volume by around 80%.

Conclusions and Generalizations:

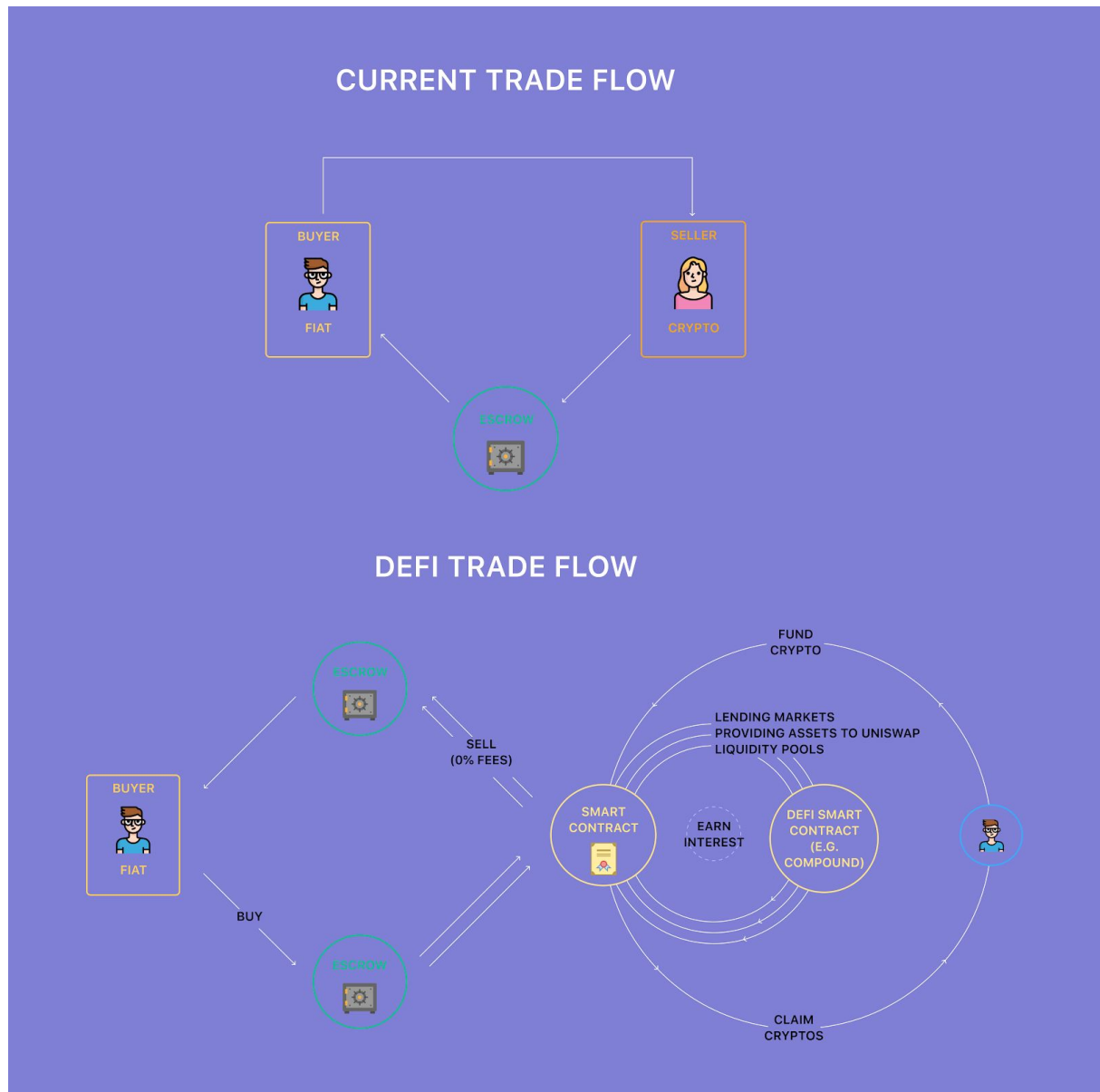
From this, we can conclude that our solution can drastically minimize costs for users. It also increases the upside in yield farming with a smaller budget. This makes DeFi more accessible to everyone, and unlocks a larger market that has not been able to enter DeFi yet.

In general, our solution makes yield farming extremely scalable for more users. We believe that the number of steps S in DeFi may grow a bit more with complexity, but the number of users U using DeFi will grow exponentially. When we compare aggregate gas spending without our solution, $2USP$, and with our solution, $2P(S + U)$, we can actually observe the following:

$$\lim_{U \rightarrow \infty} \frac{2USP}{2P(S+U)} = \lim_{U \rightarrow \infty} \frac{US}{(S+U)} = S$$

This shows that it is possible to infinitely scale yield farming with users.

How it works



The Future

Evolution of the GIV Token

The long term vision for GIV is to enable crypto-asset movements between different blockchains. Currently, the token is available on BEP-2 (Binance blockchain) but it will be deployed on other blockchain standards like TRC-20 (Tron blockchain) or ERC-20 (Ethereum blockchain) in the near future.

Cross-chain and cross-asset communication will facilitate access to DeFi solutions by removing trading and swapping hurdles we witness today. We are building an ecosystem where, for example, you can trade gold for an NFT, contract a loan with a BTC collateral and pay it back in GIV tokens.

GIV will evolve to be a governance token on the platform, offering a truly decentralized solution.

This will require holders to stake GIV in order to **earn interest and increase voting rights**. Voting rights offer GIV holders the ability to control the level of inflation, interest and free float (by way of token burns). Finally, token holders will be able to vote for new listings on CryptoLocally.

Learn more about how GIV works by visiting our guide:

<https://cryptolocally.com/en/blog/how-to-use-giv>

You can also learn how to create an offer, sell or buy crypto on our platform here:

<https://cryptolocally.com/en/eos/how-to>

Non-Fungible Tokens

A non-fungible token (NFT) is a digital asset which is unique, indivisible and valuable. Cryptokitties initially popularised their digital art and represented it in that manner.

We believe that we are at the very beginning of this type of digital asset and non-fungible token ecosystem.

Cryptolocally already supports WAX, a token specifically designed for the NFT ecosystem. A Cryptolocally fiat gateway to NFTs is on the way!