

# Lyra: A Decentralized OTC Trade Platform

Wuzhou Yang (wuzhou@lyra.live)

## Abstract

Blockchain makes a decentralized financial system possible. DeFi tries to provide a solution on-chain but cannot handle off-chain data. Lyra invented decentralized OTC trade by extending DeFi to decentralized business.

## Introduction

Because of global eCommerce, we witness a massive demand for trade between Cryptocurrencies and Fiat currencies. As a result, most big crypto exchanges provide fiat deposition/withdrawal services implemented by traditional bank systems, plus P2P-based OTC trade, which depends on customers to offer liquidity. Some other companies offer OTC trade only for business, such as Circle Trade, Cumberland Mining, Koi Trading, etc. Although most of them do not publish data about the volume, various sources confirm that the trading volume of OTC is far more significant than exchanges like Binance, OKX, etc. OTC trade is the essential method to trade crypto.

All existing OTC businesses set a high bar for customers, including but not limited to: setup account, strict KYC, minimal trading volume, etc. Unfortunately, this relatively high cost limited the possibility for massive adoption by everyone. Lyra OTC trade solves the problem by decentralization. Lyra introduces the concept used by DeFi in the OTC trade, by which anyone can trade at any time without any pre-registered account and KYC procedure.

On the Lyra OTC platform, both seller and buyer need to provide a minimum 100% worth of LYR as collateral when trading. The collateral is managed by Smart Contract, which will be sent back to the owner's account on a successful trade. When a dispute happens, Lyra ODR (Online Dispute Resolution) system will try to settle the case and use the collateral to recover the loss. So Lyra OTC implements safe OTC trade without pre-conditions and lets people exchange money freely like cash.

Below illustrated the difference between Lyra Decentralized OTC and traditional OTC.

	Lyra Decentralized OTC Trade	Traditional OTC Trade
<b>Operator</b>	Smart Contract based on Lyra Block-Lattice Technology	Private Company
<b>Seller</b>	Anyone without register	Registered user, KYC user
<b>Buyer</b>	Anyone without register	Registered user
<b>Safety</b>	Secured transaction by Smart Contract	By the platform tools
<b>Pledger</b>	Both buyer and seller	Seller only
<b>Collateral</b>	LYR Coin	Specified by the platform (Token or Fiat)
<b>Dispute Resolution</b>	Lyra ODR run by the community	Customer service by the platform
<b>Dispute Settlement</b>	Lyra DAO Voting	Unknown procedure of the platform
<b>Credit</b>	Trenchancy data, immutable comments	Risk control by internal procedure
<b>Privacy Protection</b>	Dealer server has the private data. Users can choose any dealer to make a trade. Users have a chance to remove private data forever.	The platform has you all. Not easy to remove private data.
<b>Liquidity provider</b>	User generated liquidity	Platform certified sellers

## DAO: Decentralized Autonomous Organization

There are various settings for OTC business, such as the ratio of collateral, the share of profit to Lyra consensus network, the resolution of dispute trade, etc. Lyra will not set unique variables across the whole platform but give a chance to DAOs. Users need to create a new order based on one specified DAO's settings. So Lyra turns DAO into a profiting business. We encourage entrepreneurs to set up the best settings for a specified group of people and create a thriving market that brings more profit.

## ODR: Online Dispute Resolution

The handling of disputes plays a crucial role in a completely decentralized trading platform. Lyra provides an ODR system that has three levels of resolution.

On the first level, one of the trade parties, the buyer or seller, will inform the peer that there is a dispute in the trade. Then, other people involved will have a chance to fix the problem. Disputes resolved on this level will not be recorded on the blockchain.

On the second level, when the negotiation between buyer and seller can't fix the problem, one of them will request the intervention of DAO, which the trade has happened. Then, the operators of DAO will try to resolve the dispute depending on the evidence of both sides. If many people operate the DAO, voting on the resolution is necessary. Then, the solution will be final and executed if both sides, buyer and seller, are willing to accept. Disputes resolved on this level will be recorded on the blockchain.

On the third level, if any part rejects the solution provided by the DAO, the dispute will bubble to the Lyra Committee. The Lyra Committee is composed of the owners of the verification nodes of the Lyra blockchain network. The final decision is based on voting according to the principle of a 2/3 majority, and the conclusion of the Lyra Committee is mandatory; regardless of whether the parties to the dispute accept or not, the decision will be enforced. Lyra records arguments at this level, and details, including evidence from both parties, may be made public. In addition, since the DAO cannot resolve the conflict, the DAO will eventually pay the Lyra committee's mediation fee and a penalty of 30% to 100% of the value of the disputed transaction loss.

## Privacy Protection on Lyra eCommerce Platform

When people trade online, there will always be a problem with privacy. Lyra provides a Web3-style eCommerce platform, and privacy protection is the most critical part of the whole system. So how to keep the trade, on-chain or off-chain, feasible while protecting the privacy data from leaking? Lyra makes it possible through decentralized dealer servers.

A Lyra Dealer Server can set up real-time communication between buyers and sellers by which they can exchange crucial private data, which is necessary for the trade. So both parties should trust the dealer server. As we know, it's hard to find a dealer server trusted by all people, but it is easy to find one which the buyer and seller trust. We make it so easy on the Lyra platform that anyone can set up a dealer server. Most importantly, privacy data is only stored within the server, and no one can access it without permission.

Dealer server stores messages generated by traders in its blockchain-style database. The hash generated for every state change will later be stored in Lyra public blockchain. Everyone can verify the integrity and authenticity of the transaction data.

## Credit System

Credit plays a crucial role in any financial system. How to guarantee the safety of trade without user account approval and KYC? Lyra builds customers' recognition via the whole community.

A trader can comment on every trade they've made on the Lyra OTC platform. Blockchain-like database stores all comments to make it immutable and undeletable. So we encourage users to build credit via good transactions, which accumulate with time.

Publicly available to read transaction data and trustworthy comments make Lyra OTC more reliable than KYC.

## Market and Future

Decentralized OTC lowers the cost (both time and money) of trade to a minimum, enabling anyone to exchange currency freely. Historically, a successful business is always the business that reduces the cost of a transaction.

## Conclusion

Lyra Decentralized OTC trade releases people from institutions control and returns privacy to everyone. For the time being, Lyra will create a vast market.