



Decentralized NFT Liquidity Protocol

Ready for the Metaverse

Litepaper v1.0

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Overview

Metaverse is today what the Internet was 20+ years ago. It is a new era of the digital worlds that is gradually opening up, marked by the rise of new generations, technologies, and mindsets.

Like what tech investor Bill Tai told CNBC's Arjun Kharpal on Jan 12, 2022, we believe that assets like "company stocks and real estate will be among the many things that get turned into non-fungible tokens", commonly referred to as NFTs, which represent a natural evolution of storing value and attributing ownership for unique assets.

Our focus is on building the infrastructure platform enabling the growth of NFTs as an asset class. Build on top of the Metacounter Protocol set of smart contracts, the platform provides a series of easy and intuitive Web3 applications/utilities such as NFT price statistics and peer-to-peer price negotiation tools.

This document describes the features and ideas of a decentralized marketplace - the first Web3 application released using the protocol where users can choose to participate as borrowers or investors: borrowers get liquidity using NFT assets as collateral for loans; investors earn low risk yield on crypto assets by funding the open loan requests.

Deployed on the Ethereum blockchain, the Metacounter Protocol facilitates trustless borrowing, lending, and escrowing of NFT assets, it provides greater liquidity for NFT holders while ensuring investor confidence with secured loans collateralized by NFTs.

1. Insufficient NFT liquidity

NFTs are entirely unique, one NFT can't be replaced with something else, there are big differences between any NFTs even in the same series. Because the judgements of the NFT's value are easily to be influenced by the subjective factors of the parties in negotiation, it's much more difficult to value and therefore, to trade NFTs when compared to fungible cryptocurrencies.

There's tremendous growth in volume, reach, new users of NFTs and their applications, more and more platforms like NFT marketplaces, auction sites, and lending websites are allowing users to list NFTs for sale, however NFT collectors, creators, and liquidity providers who want to hold NFTs for longer terms will often find the liquidity of their balance sheets is not good as it should be when compared to holding fungible cryptocurrencies.

2. Collateral Backed NFT Liquidity Protocol

As one of the infrastructures to meet the need for increased liquidity and ROI opportunities as well as the metaverse opportunities for NFTs, we developed a set of smart contracts deployed on the Ethereum blockchain that facilitates trustless off-chain order matching using structured digital signatures to validate loan terms from borrowers and investors, so they can both meet their respective needs through peer-to-peer talk to negotiate terms and settle transactions within controlled risk exposures, without the need to know each other prior to starting the conversation.

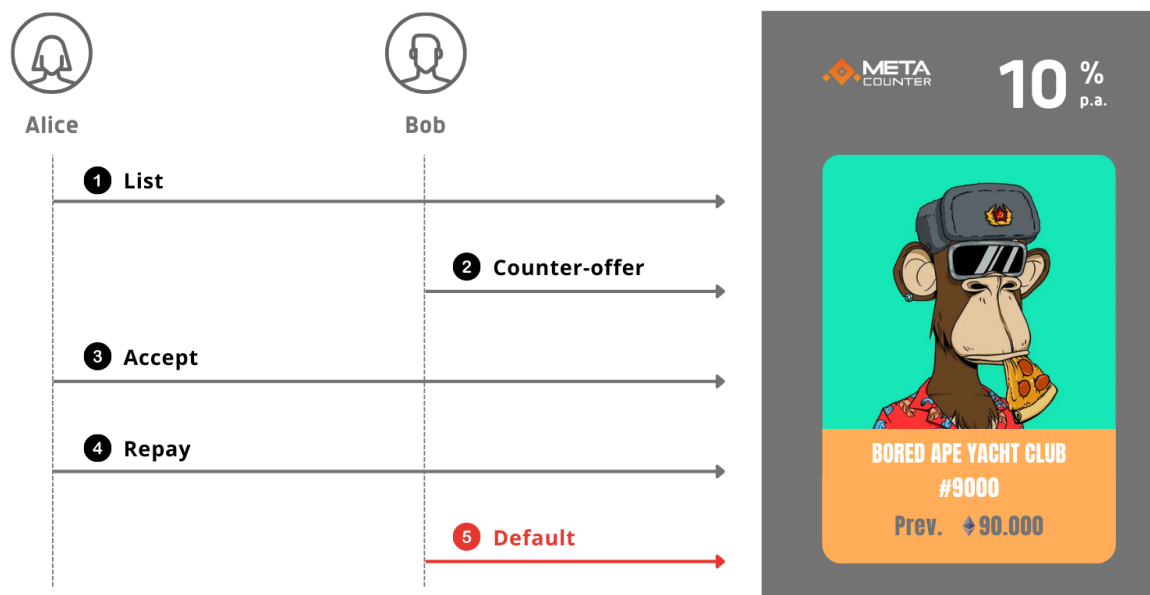
Adopting the latest encryption and blockchain technologies, collateralized NFT assets can only retrieved under 2 scenarios:

- Borrower redeems the NFT when the loan is paid off.
- Investor claims the NFT when the loan gets default.

This ensures the security of user assets because no one including the platform can retrieve them illegally.

The ideas behind Metacounter platform's core business logic came from the pawnbroker industry that can be traced back to 2,000+ years ago in China and Europe. The platform provides a marketplace and utilities in internet and metaverse where users can act as borrowers or investors and simply start to trade.

The following story about Alice and Bob briefly explains how borrowers and investors get to reach a deal on the Metacounter platform:



- As borrower, based on 1-year fixed rate published by the platform, Alice lists ^① NFT A and create a loan request on the following term:
Use NFT A as collateral to get a 150,000 USDT loan, to be repaid in 1 year.
- As investor, Bob sees Alice's offer and make a counteroffer^② accordingly:
Give a 148,000 USDT loan, no change to other terms.
- Alice accepts^③ Bob's counteroffer which signals the loan agreement is reached between Alice and Bob. And consequently, the smart contracts

locks asset in escrow, transfers funds from Bob to Alice, issues Borrower Note NFT (the pawn ticket) to Alice, and issues Investor Note NFT (the debt certificate) to Bob;

- Alice repays^④ the loan and interest on time ($148,000 + 148,000 * 10\% = 162,800$ USDT), and uses her Borrower Note NFT to redeem NFT A;
- If Alice fails to repay the loan on time^⑤, NFT A are transferred on-chain to Bob (who owns the Investor Note NFT), Bob has the right to dispose NFT A, including hold or sell it via Metacounter's auction service or third-party marketplaces.

3. Main Features

The first release of Metacounter platform v1 includes the following main features:

3.1. On-chain asset escrow

To ensure the collateralized assets are safe, Metacounter Protocol creates a Metacounter NFT (**mcNFT**) in ERC721 format and conducts on-chain escrow for all ERC721, ERC1155, and ERC20 assets submitted and encapsulated for collateral purposes.

In case the borrowers want to put multiple NFTs into collateral, he/she can choose to add more NFTs into the existing mcNFT before it's being put into escrow. mcNFT represents and stores all encapsulated NFT assets put together by the borrowers.

Once the loan agreement is reached by borrowers and investors, assets represented by the mcNFT will become collateral and are safely locked up inside the escrow smart contract (on-chain escrow).

3.2. Loan request

NFT holders can use the Metacounter platform to create a loan request with their NFTs as collateral and negotiate terms with the interested investors.

To create a loan request, borrowers need to :

- Select the NFTs he/she would like to add as collateral;
- Set the parameters including the specific amount to borrow, duration (choose from 3 months, 6 months, 9 months, and 12 months);
- The amount to repay will be calculated automatically using the value specified in the amount to borrow, and the corresponding interest rate published by the Metacounter platform at the time of loan request;
- Sign a payload transaction for the terms.

At this point, the loan request is ready to be fulfilled by an investor who can see the unmatched request on the platform and the loan agreement will be reached immediately if any investor accept and lend at these terms.

Once the loan agreement is reached, the funds are disbursed to borrower's wallet, mcNFT becomes collateral and are safely locked up inside the escrow smart contract, and a Borrower Note NFT (**bnNFT**) in ERC721 format will be minted and issued to the borrower representing their claim to the assets upon loan repayment.

Borrower can transfer bnNFT to someone else, anyone who holds it can claim the collateralized NFT assets back after repaying the loan, this means bnNFT has liquidity, borrowers can put it up for sale, trade it for something else or hold it for whatever reasons.

3.3. Loan approval

As investors you can explore all the unmatched loan requests and choose the requests you would like to accept and lend at the terms, or simply make a counteroffer:

- The loan agreement is reached immediately if investors choose to accept.
- Investors only need to indicate the specific amount he/she is willing to lend to the borrower if investors choose to counteroffer. At this time, borrowers can choose to accept or reject the counteroffer and if borrowers choose to accept, the loan agreement is reached immediately.

Optionally, investors can send an encrypted private message to the borrower at the time when accepting or counteroffering the terms, borrowers also have the option to reply to investors when accepting or rejecting the counteroffer.

Once the loan agreement is reached, the funds are transferred from investor to borrower's wallet and the investor receives an Investor Note NFT (**inNFT**) in ERC721 format representing their claim to the assets collateralizing the loan.

Investor can transfer inNFT to someone else, the assets collateralizing the defaulted loan are transferred on-chain to the address that owns the inNFT, this means inNFT has liquidity, investors can put it up for sale, trade it for something else or hold it for whatever reasons.

3.4. Trustless order matching

Simple logics embedded in the Metacounter Protocol smart contracts ensures that:

- Borrowers can settle a loan by accepting investor's counteroffer trustlessly because the investor has digitally signed the terms of the counteroffer and approved the funding amount for the terms to the escrow.
- Investors can fund a loan request by accepting borrower's terms trustlessly because the borrower has digitally signed the terms and the collateralized assets were safely locked up inside the escrow.

Therefore, both parties can quickly reach the agreement and meet their own needs without the need to know each other prior to starting the conversation.

3.5. Default

When the loan gets default, the assets collateralizing the defaulted loan are transferred on-chain to the address that owns the inNFT, the holder of inNFT now has the right to dispose the NFT assets including hold or sell it via Metacounter's auction service or third-party marketplaces. For those who choose to start an auction on Metacounter, the platform provides some handy tools to help them quickly set up, advertise, and manage the auction.

3.6. NFT price tracker

The Metacounter platform provides price tracking tools for collateralized NFTs, including transaction history, wallet addresses, price charts, price of the NFT series on third-party platforms, and other useful records retrievable from the blockchain.

3.7. Peer-to-peer price negotiation tool

The Metacounter platform provides encrypted point-to-point communication mechanism for both parties to negotiate and agree on terms. The platform publishes and updates the fixed interest rates (choose from 3 months, 6 months, 9 months, and 12 months).

Both parties use the simple formatted templates provided by the platform to make offer or counteroffer, the only item needs to be agreed on is the amount to borrow. There is no need to wasting time negotiating the interest rates, or unsupported durations..

In order to further improve efficiency and help users to reach consensus on the amount to borrow as quickly as possible, the platform provides data statistics and utility tools such as historical transaction prices of collateralized NFTs, collateralizing records, recent and historical prices of NFTs in the same series, and

interest/yield conversions etc. This will help both parties to reaching consensus on the market price and LVR rate (loan amount/market price of collateralized NFT) of the collateralized NFT at the current point in time easily, reducing the amount of calculation and complexity of quotation and counteroffering.

3.8. Credit scores

The Metacounter Platform provides statistics on how much loans were made by the investors and the credit history of the borrowers. This will help borrowers and investors to identify or evaluate high-quality partners. The statistical results and remarks are open to all users.

3.9. Blue chip NFTs and whitelist

Based on quantitative indicators such as floor price, liquidity, and qualitative indicators such as community dynamics, the platform reviews and formulates blue-chip NFT lists and whitelists. Only NFT assets that have been clearly whitelisted are allowed. Loan requests collateralized by NFTs in the blue-chip list will be listed on prominent positions.

The platform announces the standards for the blue-chip list and whitelist. If users want to use a certain NFT series that is not on the whitelist, they can apply by filling in the online application form to get the NFT series added to the whitelist.

3.10. Channel Marketing

The Metacounter Platform supports channel marketing, including channel codes, channel statistics, and sharing of channel merchants.

3.11. Fee structure

For each successfully matched loans, 20% of the interest will be payable to the Metacounter platform. When the borrower and the investor reach the agreement, the commission fee is automatically deducted from the funds received by the borrower through the smart contract.

The following examples of Alice and Bob illustrate the scenarios where the investor directly approves the loan application, and the two parties reach an agreement after a counteroffer.

Case 1 - Investor directly approves the loan:

- Alice, as a borrower, creates a loan request on the terms below:
Use NFT A as collateral to get a 100,000 USDT loan, to be repaid in 1 year
- Bob, as an investor, accepts Alice's terms, the loan agreement is reached immediately. At the same time when Alice receives the funds, the smart contract automatically pays a commission of 2,000 USDT ($100,000 * 10\% * 20\%$) to the platform
- When the repayment is due, Alice needs to repay 100,000 USDT to Bob, plus the interest of 8,000 USDT ($100,000 * 10\% - 2,000$)
- Bob achieves 8% ($8,000 * 100\% / 100,000$) net APR on this investment

Case 2 – Both parties reach an agreement after a counteroffer:

- Alice, as a borrower, creates a loan request on the terms below:
Use NFT A as collateral to get a 100,000 USDT loan, to be repaid in 1 year
- Bob, as an investor, makes a counteroffer as below:
Give a 90,000 USDT loan, no change to other terms
- Alice accepts Bob's counteroffer, the loan agreement is reached immediately. When Alice receives the funds, the smart contract automatically pays a commission of 1,800 USDT ($90,000 * 10\% * 20\%$) to the platform
- When the repayment is due, Alice needs to repay 90,000 USDT to Bob, plus an interest of 7,200 USDT ($90,000 * 10\% - 1,800$)
- Bob's achieves 8% ($7,200 * 100\% / 90,000$) net APR on this investment

4. Supported Digital Asset Classes

The Metacounter Protocol is compatible with any digital asset class that supports ERC721, ERC1155, and ERC20 standards, including arts, identity tokens, in-game assets, physical asset mapping, metaverse derivatives, and other NFT products that support ERC721 and ERC1155. This also includes fungible tokens using the ERC20 standard, and tokens obtained by providing liquidity to DeFi liquidity pools. Through the regular review mechanism of blue-chip NFT and whitelist, the platform supports those NFTs whose indicators such as floor price, liquidity, and community dynamics meeting the requirements.

5. Security

Different from centralized and liquidity-pool based lending platforms, the loan agreement on the Metacounter platform is reached after negotiation between the borrower and the investor through peer-to-peer communication to ensure that the agreement is executed trustless according to simple logics embedded into the smart contracts. The Metacounter team cannot access the collateralized assets or funds at any time, nor can it participate in the negotiation between the two parties in any way.

In order to ensure the security and stability of the smart contracts implemented in the Metacounter Protocol, before the official launch, the team will launch Alpha and Beta tests on Rinkeby and Ethereum Mainnet respectively; the team will complete the third-party contract Comprehensive audit by security audit institutions, and release the audit results to the community before the official launch.

6. The Significance of Metacounter as an Important Metaverse Infrastructure

In addition to providing borrowers with safe and convenient access to short-term loans and users can benefit from obtaining liquidity without selling their long-term NFT assets, the significance of the Metacounter platform is that it provides a business opportunity similar to Ebay and Alibaba in the early Internet age, it only

requires a minimum of experience for users to start make investment and get reasonably good return with controlled risk exposures.

Compared with other liquidity protocols, the rules and policies of the Metacounter platform are much simpler and easy to understand. Since loan requests with a reasonable LVR rate will be selected by investors first, the competition generated in this fair market environment means NFT assets can achieve a reasonable valuation on the Metacounter platform. Similarly, due to the existence of a highly diversified and competitive borrower market, investors can find the most suitable deals under most of the circumstances for almost any type of collateralized NFT, thereby get better returns.

7. Conclusion

Based on collateralized NFT assets, the Metacounter platform provides users with a business opportunity similar to Ebay and Alibaba in the early Internet era, it only requires a minimum of experience for users to start make investment and get reasonably good return with controlled risk exposures.

Adopting simple rules and policies, the Metacounter platform can not only improve the liquidity of NFT assets, support more NFT categories, provide better protection to investors, but also come up with something that other DeFi platforms cannot achieve. It also avoids the catastrophic results caused by systemic risks.

After the first version of the Metacounter Platform v1 is released, the team will adhere to the commitment of decentralization in the development of subsequent features. We firmly believe that the future is an era of people-oriented, starting from the Metacounter protocol, Metaverse is a good opportunity for insightful people to dig gold!

Appendix

1. Drops - NFT As Collateral & Instant NFT Loans: <https://drops.co/>
2. JPEG'd – Bridging the gap between DeFi and NFTs: <https://jpegd.io/>
3. Pine – Instant NFT loans: <https://pine.loans/>
4. NFT Liquidity – Borrow, Lend, Earn: <https://www.arcade.xyz/>
5. NFTfi – Borrow & lend on the leading NFT liquidity protocol:
<https://www.nftfi.com/>