The World's First DeFi Lease

Whitepaper

nolus.io

Contents

Abstract

Nolus Protocol is a Web3 financial suite that offers an innovative approach to money markets with a novel Lease solution to develop the DeFi space further

The DeFi Lease defines a money market between lenders looking to earn yield on stablecoins, and borrowers, looking to borrow more digital assets than their current equity

To borrow assets, the borrower locks up a down payment as collateral and can leverage their holdings in a preferred digital asset

The Nolus DeFi Lease provides up to 150% financing on the initial investment, where the user retains ownership over the digital asset. The Nolus DeFi Lease comes with lower margin calls and total costs, all wrapped in an intuitive and easy-to-use UI

The Nolus Protocol utilizes a lightning-fast Layer-1 blockchain build with Cosmos SDK. It is a decentralized, censorship-resistant medium with little to no additional cost for transactions and no custody over the user's funds

Context

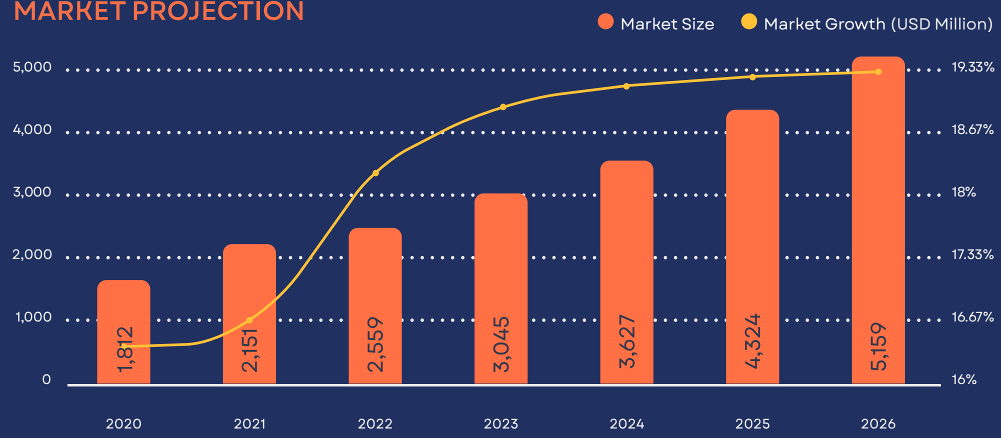
In recent years, a massive influx of retail investors entered the crypto world while institutional support grew exponentially. The vast array of new DeFi solutions available to users has been fundamental in driving significant improvements to financial markets, adding transparent, open and immutable infrastructure [1]

In 2021, exchanges reported a notable increase in both signups, and trading volume – some citing between 100-200% increases in their usual rate of novel registrations [2]

According to some strategists, this is not due to COVID boredom but rather a move away from legacy financial systems to a more general acceptance of cryptocurrencies as a new asset class [3]

The increasing digitization across industries, legalization, purchase, sale, or trade of virtual currencies in various developed countries, and convenient access to online trading Protocols through smartphones all contribute to market growth. We believe that the global cryptocurrency market will continue its robust expansion in line with the above

GLOBAL CRYPTOCURRENCY MARKET PROJECTION



Cryptocurrency Market Research Report - Global Forecast to 2026

The global cryptocurrency market is projected to grow at a CAGR of 11.2% in the 2020-2027 period

The vast number of new DeFi solutions has been a fundamental driver to the global cryptocurrency market

1. Decentralized Finance: On Blockchain- and Smart Contract-Based Financial Markets
2. Crypto exchanges are booming, for now
3. The Shift Toward Decentralized Finance

Inefficiencies

Our firm conviction is that the popularity of DeFi solutions will only increase in the future. As a result, current market participants will increase their holdings and involvement, while newcomers with limited or no financial background will enter this nascent asset class

However, there are many obstacles that must be tackled before the sector reaches the conflicting point of mass adoption

Inefficiencies

OVER-COLLATERALIZED LOANS

× **PROBLEM:**

The industry suffers from rather steep over-collateralization requirements, making lending options unfavorable. A proliferation of locked-up collateral holds back the potential of the market because it ties up otherwise useful capital to manage counterparty risk

✓ **SOLUTION:**

Nolus DeFi Lease provides financing up to 150% on the initial investment thus reducing the level of collateralization by a factor of 3

RISK OF LIQUIDATION

× **PROBLEM:**

In both cases, where users want to maximize their gains via over-collateralized loans or futures contracts, they are exposed to a high risk of liquidation that could lead to loss of equity

✓ **SOLUTION:**

Nolus DeFi Lease has 40% lower liquidation rates compared to the market average (all parameters equal)

Inefficiencies

HIGH COSTS

× **PROBLEM:**

Effective interest rates vary between 11% and 19% for CeFi, while DeFi solutions have variable interest that can go even above 30%. Transaction fees on Ethereum can reach 50% of the transaction for smaller amounts

✓ **SOLUTION:**

With Nolus, total costs of financing and transactions are low – the never-changing interest rate is locked at contract creation, with little to no additional cost for transactions

OWNERSHIP

× **PROBLEM:**

One can use leverage to speculate with more equity without the need for over-collateralized loans. However, most exchanges that allow futures or perpetual contracts do not give ownership of the asset

✓ **SOLUTION:**

With Nolus, ownership lies within the user

Inefficiencies

COMPLEX EXPERIENCES

× **PROBLEM:**

Complex onboardings, concepts, and processes deter users away. CeFi solutions are way too technical for the average person to operate with

✓ **SOLUTION:**

With Nolus, the user enjoys a quick and clear experience wrapped in an intuitive and easy-to-use UI with simplified onboardings and processes

MISSING OUT

× **PROBLEM:**

Retail users have limited liquidity and are unable to purchase more assets today at the desired price level(s)

✓ **SOLUTION:**

With Nolus, the price of the desired asset is locked in at the contract creation date, and the customer can use the asset's price appreciation in the future to repay the initial cost of the investment and has full ownership of the underlying asset

Nolus Protocol

Inclusive, intuitive, and easy-to-use solution to empower mainstream adoption

Nolus Protocol aims to merge the boundaries between TradFi and DeFi in a holistic experience, leveraging various financial instruments and the advantages that decentralized finance offers

Nolus' Key Features:

Finance

→ DeFi Lease

Asset Management

→ Manage, Swap & Ramp
→ Earn Yield
→ Stake

FINANCE

The DeFi Lease defines a money market between lenders looking to earn yield on stablecoins, and borrowers, looking to borrow more digital assets than their current equity. To borrow assets, borrowers provide a down payment and can leverage it

When a DeFi Lease is opened, the down payment and the loan provided by Nolus Protocol are locked in a smart contract instance, both acting as collateral. The never-changing fixed borrower terms of interest throughout the lease contract provide predictability for future cash flows and yield distributions toward lenders

Nolus Protocol is designed to work on a cash basis model where actual yield rewards lenders. Interest from DeFi Leases will be due for collection in specific periods and, if not paid, will be automatically deducted from active DeFi Lease positions. The principal can remain unpaid for as long as the user desires, however in the event of a downturn, a margin call will trigger partial liquidations, eventually liquidating it in full if the downturn is severe

ASSET MANAGEMENT

Nolus provides a seamless solution to manage a plethora of cryptocurrencies and earn on idle stablecoins

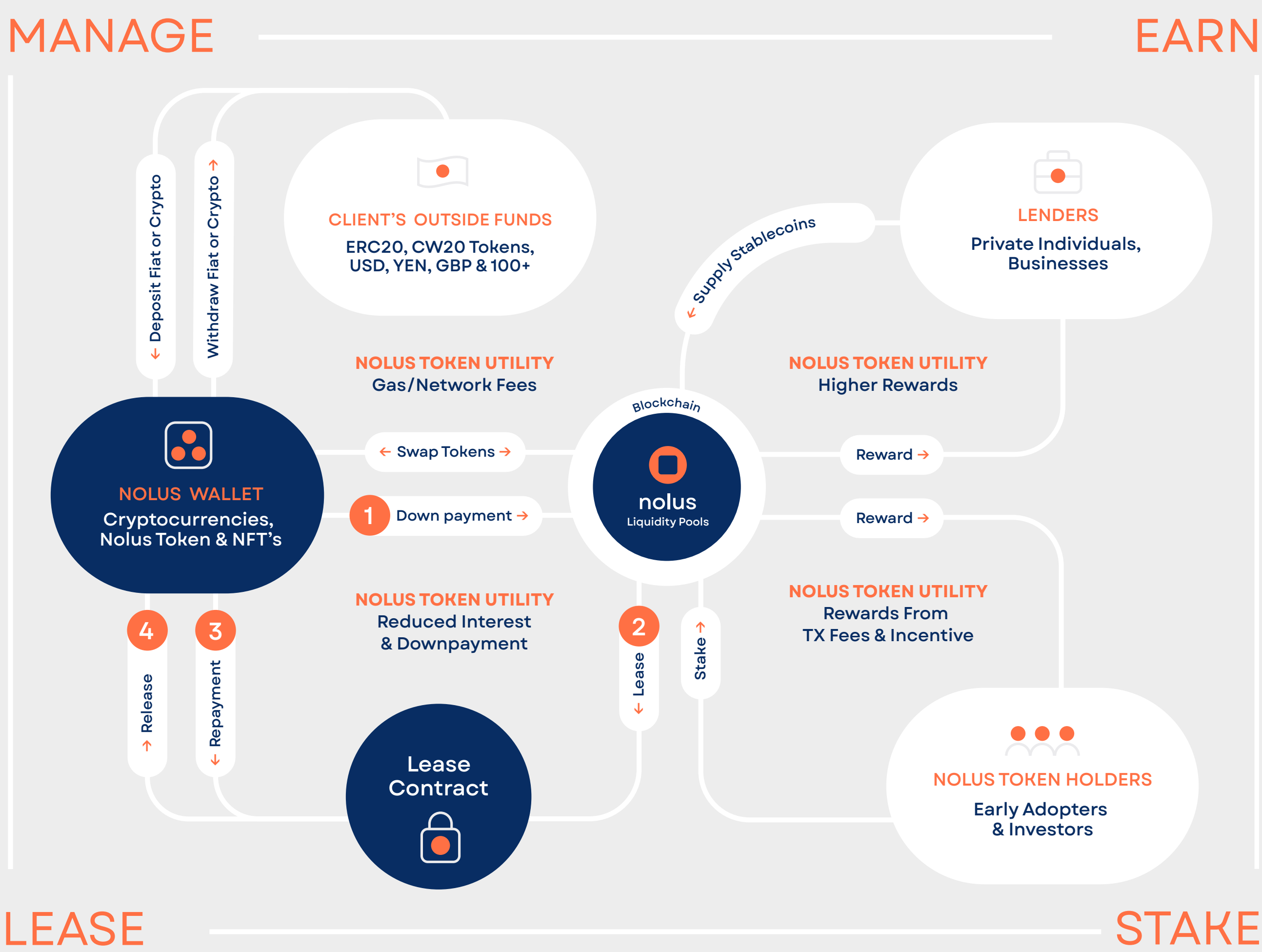
Nolus sources its deposit yields from the interest-bearing DeFi Leases and incentivizes lenders with additional rewards by releasing NLS tokens from the Incentivization Pool. Payouts are done from a couple of unique revenue streams

Revenues from the DeFi Leases will average at ~13% APR. Lenders will receive 11% in stablecoins, leaving the Protocol with revenue of 2% (stream 1). Combining it with a swap spread (stream 2) and a small TX fee (stream 3), the three streams buy back NLS tokens from the open market, actively refilling the incentives pool and creating a sustainable model that will reward participants in the system as long as it is economically active

Nolus Protocol

BUSINESS MODEL

Nolus goal is to build a novel user experience-driven automated money market, creating substantial value for all participants. The Business Model laid out below shows how the protocol will achieve its purpose



Market & Clients

Nolus Protocol is a practical, simple, and cost-efficient solution for everyone

By creating a safe, reliable, and user experience-driven environment for DeFi to grow on the Cosmos ecosystem, the Protocol will bridge the gap from the core market of early DeFi adopters to the vast untapped mainstream markets

NEW ENTRANTS

Nolus offers simple, high-speed onboarding to advance the adoption of digital assets. Users can transfer fiat from their bank account to the Protocol in a matter of seconds through any bank card, SWIFT, SEPA, or ACH transfer. Users can then swap different digital currencies, earn on their holdings and apply for financing

CURRENT HOLDERS

Users who already own digital assets can immediately receive access to a high-yield instrument and a place to fund their future purchases. They will benefit from a cheaper and less risky way of financing compared to any other option on the market, thus increasing the opportunity to diversify their portfolio and increase their crypto wealth

INSTITUTIONS

Crypto-asset investments have grown among institutional investors in the past years. In addition, in times of accelerating inflation expectations, institutional investors actively search for new and more efficient ways to hedge their portfolios and diversify their risk

According to JPMorgan's note to its clients at the end of 2021, "Institutional investors appear to be returning to Bitcoin, perhaps seeing it as a better inflation hedge than gold" [3]

With Nolus, institutional investors will be able to fund their diversification needs lured by the decreasing real interest rates (fixed nominal interest rate provided by Nolus less the increasing inflation percentage expected)

ADDRESSABLE MARKET

According to Research and Markets [4], the global cryptocurrency market size is expected to reach USD 5.2tr by 2026, with a cumulative value in transactions, exchanges, and wallets exceeding USD 2.2tr per year. Adoption would be spread evenly between Europe, the Middle East, and Africa (39.03%), Asia-Pacific (31.5%), and the Americas (29.47%). Cryptocurrencies are already a mainstream asset class and are expected to grow significantly over the next few years. Nolus, with its diverse products (buy, swap, store, send, finance & earn), is positioned to grow with the market and become a leader in the DeFi lending space

10x

The Global DeFi market is growing at a rapid pace. DeFi Lending with 20% is the second biggest segment after DEX and is expected to increase further [5]

DEC 26
$110B
20% OF TOTAL DEFI MARKET

JAN 21
$11B
29% OF TOTAL DEFI MARKET

3. Bitcoin not gold is the new inflation hedge, says JPMorgan
4. Cryptocurrency Market Research Report - Global Forecast to 2026
5. TVL on DeFi Lending Protocols

DeFi Lease

THE PROCESS CONSISTS OF
THREE EASY STEPS:

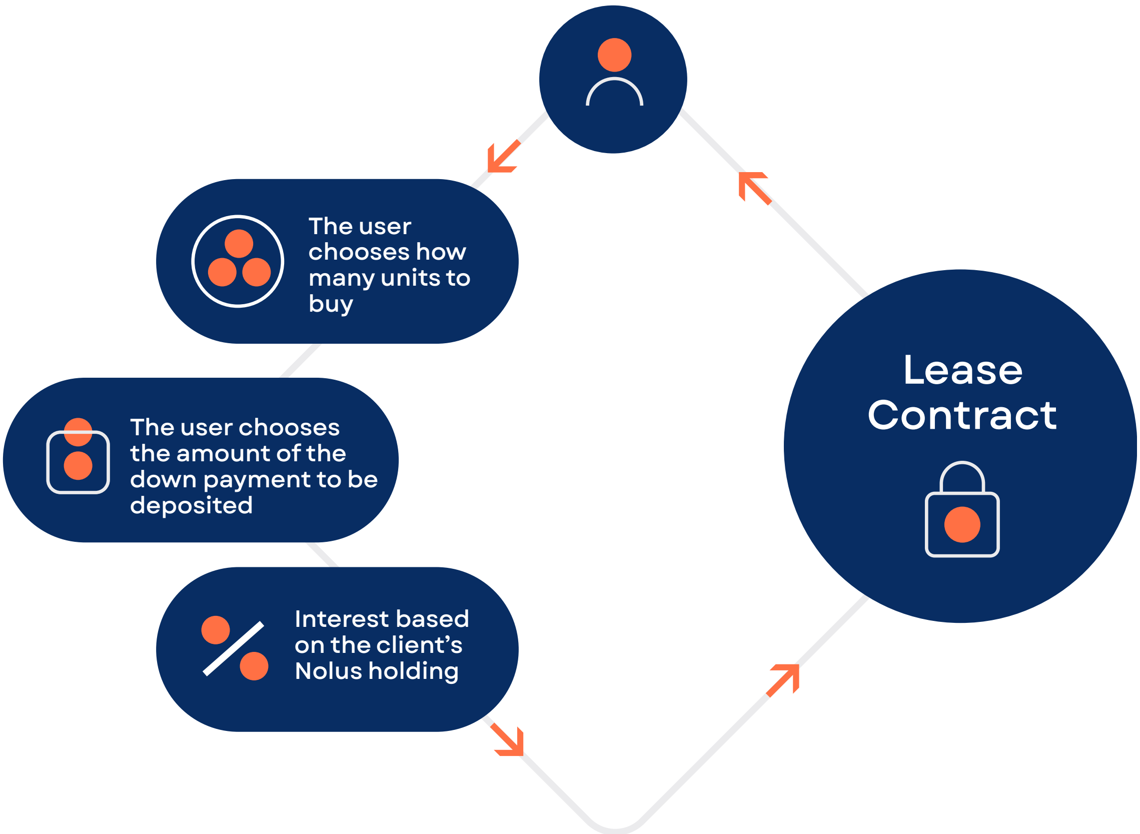
1. User applies for Nolus DeFi Lease by choosing from personalized parameters of the contract
2. User repays in fiat or crypto whenever and however they see fit
3. Nolus smart contract releases the digital asset towards the user

HOW DOES IT WORK?

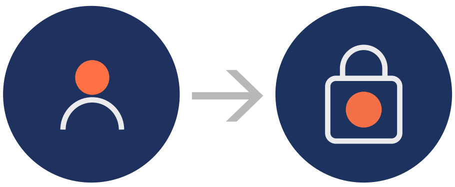
Nolus DeFi Lease is a crypto agreement where the Protocol provides financing towards the user to purchase more units of the desired digital asset than their currently available equity

Nolus DeFi Lease allows crypto users to obtain a financial product that is flexible in terms of duration and repayments. The user only needs to provide a down payment to enter the contract and use the product for as long as desired. No early repayment fees, monthly charges, penalties, or additional fees apply. Once the Lease is fully repaid, all leased assets are released to the user

STEP 1:
CONTRACT INITIATION

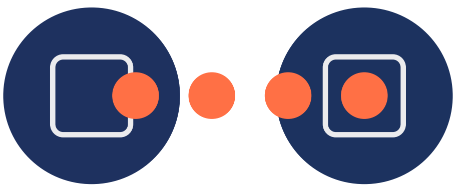


STEP 2:
REPAYMENT



It is entirely up to the user to choose when and how much to cover of his principle or interest or both

STEP 3:
ASSET RELEASE



As soon as the lease amount is repaid in full, the assets are released from the smart contract

EXAMPLE

For example, we will name our client Antony

Antony would like to purchase 1 BTC at the market price of $50,000

Antony is willing to enter into the contractual agreement with $20,000 (down payment), where the Nolus Protocol will provide the outstanding $30,000 to open a buy position for 1 BTC. If Antony decides to use Crypto Lenders, he would need to buy some crypto for $20,000, collateralize it and receive a $10,000 loan to purchase more crypto

In this example, Nolus Protocol provides 3 times larger exposure for the user than Crypto Lenders

Antony does not need to choose any repayment period. The contract is indefinite and will be closed when Antony repays in total - in one hour, one day, one month, one year, or 100 years from the contract initiation. Antony has no other costs to worry about except interest

**The interest rate
(the only charge that Antony would ever incur)
is fixed during the contract duration and is a function of:**

1. the amount of the down payment and its ratio vs. the market value of the asset
2. the amount of staked Nolus (NLS) tokens (Interest reduction incentive)

Let us assume that Antony decides to enter the above contract. Once the agreement initiates, Antony is free to repay as he pleases. Antony may choose to repay on the next day (full or partial repayment is possible at any time) and will be charged with one-day interest only. No other fees or taxes apply. He may decide to repay his interest every month for six months and principal for the next 6/12/18/24 months. He may choose to cover his principal in tranches every week/month/quarter. He may pay principle at any desired future point in time (year/two/ten)

In a nutshell, Antony has the ultimate freedom to repay according to his needs and possibilities

MITIGATION OF RISK

The user must maintain a margin between the current total outstanding debt due and the current price of the digital asset locked in the Nolus Lease smart contract. At any given time for the duration of the smart contract, the following ratio must be true:

Current Loan Debt Due < **Current Price Of Digital Asset**

In the case of price appreciation of the digital asset locked in the Lease smart contract, Antony can use the upside of the price to repay the loan partially or in full

The digital asset price locked in the Lease contract could also depreciate. In that case, Antony will receive system notifications at 30%, 20%, and 10% off the liquidation price and will be prompted to repay part of the debt to avoid partial liquidation

In that case, when a further decrease in the price of the digital asset occurs, the Lease contract will execute a partial liquidation of the position to recover the loan's balance to a healthy level

Since there is no fixed repayment schedule, the DeFi Lease would have a constant liquidation price throughout the contract if interest is covered regularly. As Antony (in the example above) has contributed a down payment (upfront payment) of $20,000 and obtained $30,000 in the form of Lease (to purchase 1 BTC for $50,000), the liquidation price for the contract would be reached when the price of 1 BTC equals $30,000 (or 40% decrease in the cost of the digital asset)

For comparison, if the client provides $20,000 collateral to the Crypto Lenders, the loan available would be $10,000 (3x less than Nolus), and liquidation will be triggered at a 37.5% decrease in the asset price (compared to 40% with Nolus)

In short, the user gets 3 times more for lower liquidation risk

If Antony decides to cover neither the principal nor the interest for a while, the daily interest amount will be added to the liquidation price attributed to the loan, thus increasing it

COMPETITIVE ADVANTAGE

Nolus ambition is to increase the inclusion of financial services within the crypto ecosystem. The Protocol is an instant low-margin-call-risk worldwide financing solution that requires no technical knowledge and is more cost-effective compared to any alternative

DeFi Lease

PRODUCT FEATURES	nolus	CRYPTO LENDERS	MARIGN & FUTURES
Financial Background Needed	NO	YES	YES
Total Cost of financing	10%	14.2% avg. across market	18% avg. across market
Fees	Interest Only	Application fee, Administration fee, Spread, Interest	Application fee, Maker/Taker fee, Daily interest, Withdrawal fee
Margin Call Risk	Very Low	High	Very High
Liquidation* drop in price of asset	67% decrease	38% decrease	26% decrease
Financing as % of collateral/ downpayment	Up to 150%	Up to 50%	Up to 125x**
Ownership of the digital asset	Yes	No collateralization	No futures contract

* example for equal parameters across the market - loan of USD 10,000 and deposited collateral (or down payment) of USD 20,000
** increased leverage brings higher liquidation risk. For example, if 10x leverage is used, the liquidation of the position would be hit in case of 4.5% drop in the price of the asset

STAKEHOLDERS

There will be four types of stakeholders within the Nolus Protocol:

Borrowers	Users who will benefit from the financing options on the Nolus Protocol
Lenders	Users who will supply liquidity to the Protocol's Vaults in exchange of lucrative rewards
Investors	Users who purchased NLS tokens through buying on the open market, IDOs or airdrops
Stakers	Users who stake Nolus (NLS) tokens to receive rewards for sustaining the blockchain's mandatory security level and decentralization

The Nolus ecosystem has been uniquely designed in a way to incentivize NLS owners to stake their tokens and maximize their benefits

Lenders will get boosted yields depending on the amount of NLS staked, while investors will be incentivized to stake to maximize the value of their holdings

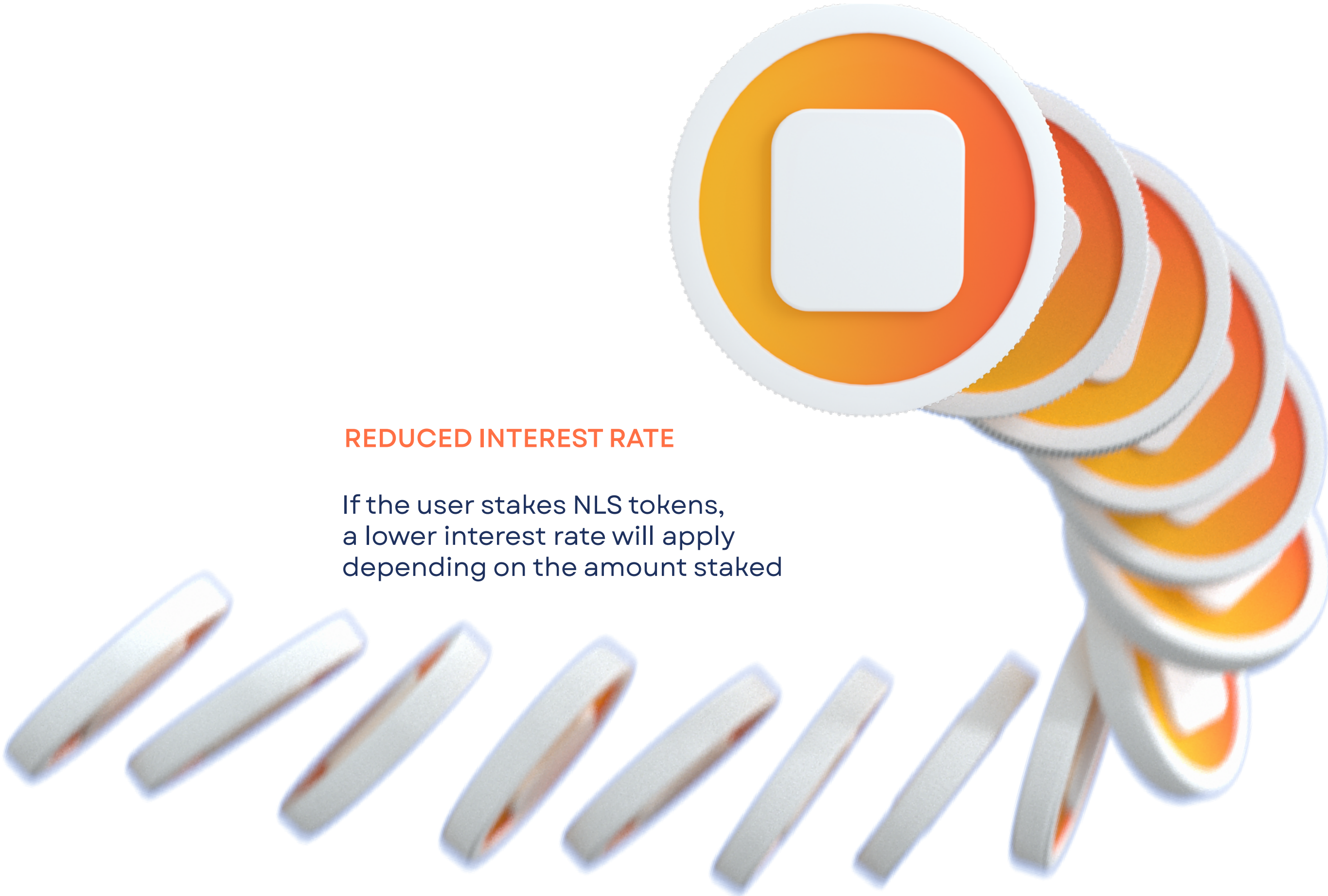
This methodology will kick-start the Nolus ecosystem and its underlying Protocol while also serving as a growth lever for user retention and adoption

The staking incentivization mechanism will further ensure that a sizable proportion of the NLS token supply is being delegated to validators contributing to the network's consensus

NLS Token

UTILITY

The NLS token incentivizes users by granting better interest rates for the Nolus DeFi Lease



REDUCED INTEREST RATE

If the user stakes NLS tokens, a lower interest rate will apply depending on the amount staked

DOWN PAYMENT

Staking NLS token makes the holder eligible for special down payment options

TRANSACTION FEES

All fees for processing and validate transactions on the network will be paid with the NLS token

GOVERNANCE

The NLS token is a governance token that allows staked token holders to decide the future of the protocol, including every implementation detail

VALUE ACCRUAL

The protocol will generate revenue and bring value to the NLS token. A list of accrual mechanisms will be put in place:

ADJUSTED DEFI LEASE INTEREST

Staked NLS tokens will grant borrowers lower interest rates when leveraging through DeFi Lease positions. Reduced interest will be calculated dynamically based on the staking duration. The longer the staking duration, the lower the interest for consequent DeFi Leases

LENDERS TIERED APR INCENTIVE

Lenders will have to buy and stake NLS tokens to increase their rewards on supplied stablecoins or tokens. The more users utilize the protocol, the more NLS tokens will be bought to achieve higher APR. Consequently, the token value will grow proportionally to the Protocol's Total Value Locked

LEASE REVENUE

The majority of the revenue will come from the interest-bearing DeFi Lease contracts. Part of the total operating income will be used to buy back NLS tokens on the open market, which would subsequently be added to the Nolus Incentives Pool used to pay out Lender's rewards

ALLOCATIONS

24%
Community
DAO Treasury

20%
Token
Sale

19%
Team &
Contributors

15%
Inflation
Staking Rewards

12%
Lenders
Incentives

5%
Strategic
Partners

5%
Liquidity &
Bug Bounty

NLS Token

Allocations →

COMMUNITY (DAO TREASURY)

24% of the genesis supply is reserved for the community. Nolus community governance will determine how and when to distribute these tokens through various incentive programs. All types of contributors can be eligible for community token incentives, including but not limited to technical contributors, community builders, and educators. All Community tokens will be vested linearly for 36 months starting at the TGE

TEAM & CONTRIBUTORS

19% of the genesis supply is reserved for the core that ignited the Nolus Protocol and the teams assisting the development. Part of the allocation will be used to help attract new talent and reward members for their work. The allocation is subject to a 15-month cliff which will begin at the TGE followed by 36 months of linear vesting

STRATEGIC PARTNERS

5% of the genesis supply is reserved for strategic partners to help develop the ecosystem and further contribute to the growth of the Protocol. These tokens are subject to a 9-month cliff which will begin at the TGE, followed by 24 months of linear vesting

TOKEN SALE

20% of the genesis supply is allocated to investors who participated in one of Nolus's private rounds. Proceeds will be used to fund protocol needs in terms of offered products. Additionally, part of the proceeds would be focused on Protocol adoption expenses and technical completion. These tokens are subject to a 9-month cliff which will begin at the TGE, followed by 24 months of linear vesting

LENDERS INCENTIVES

12% of the genesis supply is reserved for the Protocols Incentive pool, which will distribute rewards to lenders. The allocation will be liquid at TGE, but the actual distribution depends on the Protocol's growth

LIQUIDITY & BUG BOUNTY

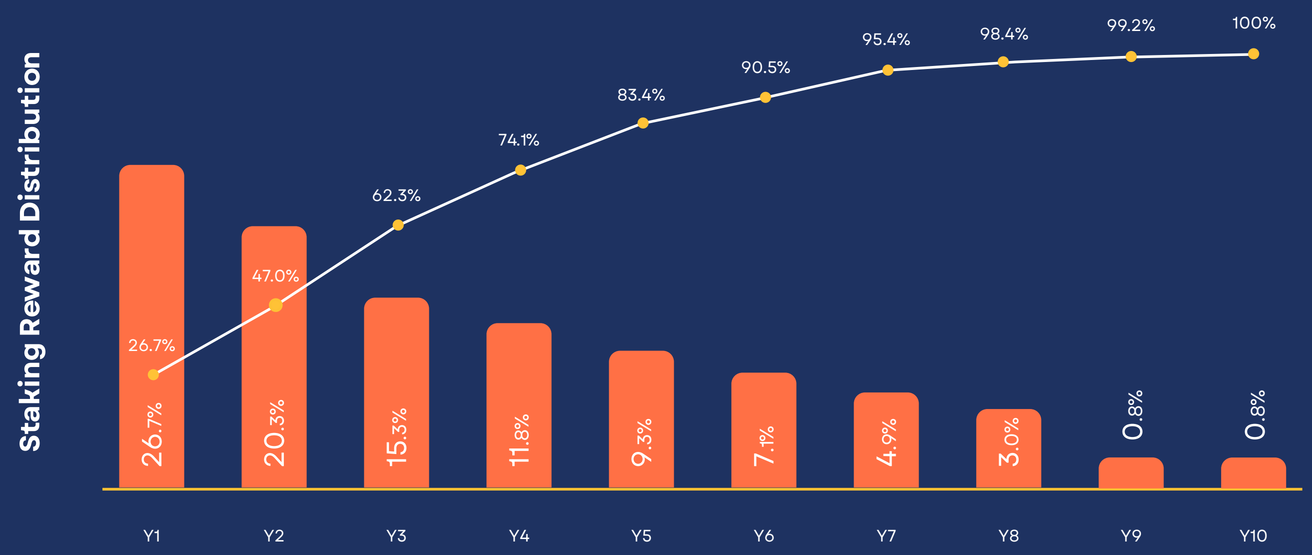
4% of the genesis supply is reserved to bootstrap liquidity and incentivize pools on several Market Makers. An additional 1% will be allocated to a bug bounty program. These tokens will be liquid at the TGE

NLS Token

Allocations →

INFLATION (STAKING REWARDS)

150m NLS tokens (15% of the total supply) shall be minted in 10 years and will serve as staking rewards to incentivize validators and delegators on the blockchain. At the end of the first month of operations, 2.5% of all tokens will be minted than the monthly percentage of newly minted tokens thereafter will decrease by 0.05 p.p. per month compared to the previous month until the end of year 1. In the following years, the amount will decrease monthly by 0.04 p.p. in year 2, 0.03 p.p. in year 3, 0.02 p.p. in year 4, 0.015 p.p. in years 5 to 7, 0.0125 p.p. in year 8 and remain constant until the end of year 1

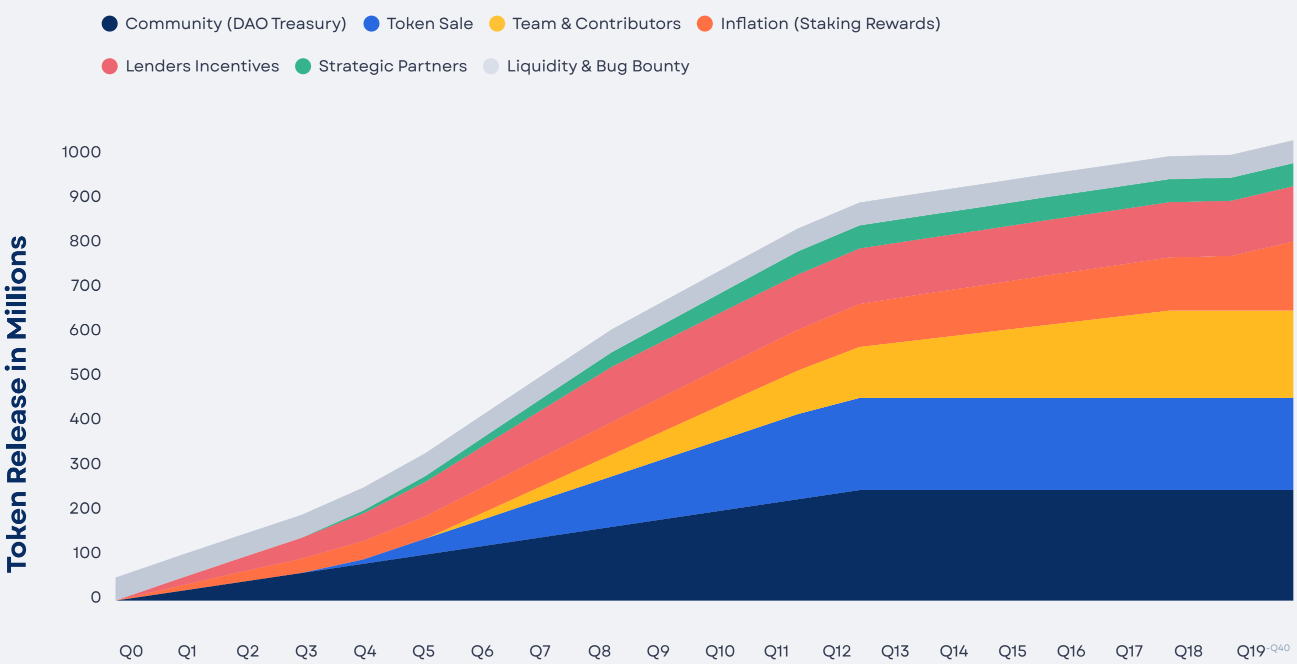


NLS Token

Allocations →

RELEASE SCHEDULE

The table below shows NLS token release schedule by quarter based on the vesting and unlocking structures

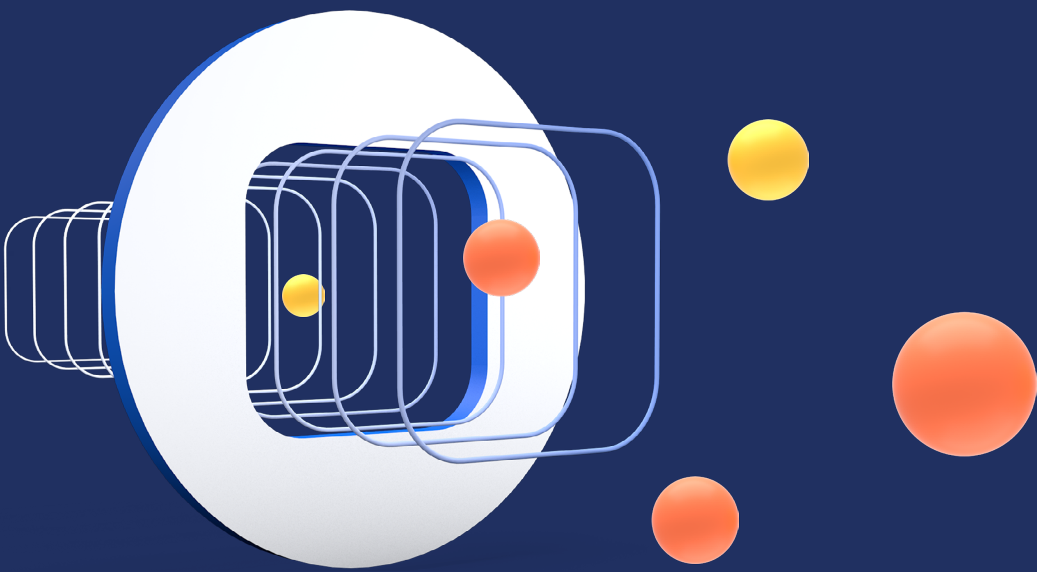


Technology

OVERVIEW

The technological backbone of the Nolus Protocol utilizes a lightning-fast Layer-1 blockchain based on Tendermint's PoS [6] algorithm, built with the Cosmos SDK [7]. The simplified creation of a sovereign, horizontally scalable blockchain with its proprietary token economy, cheap and fast transactions, and access to a thriving ecosystem of interconnected dapps and services are some of the many advantages that the Nolus Protocol benefits from

Most of the application and business logic is executed on top of the current state of the CosmWasm [8] smart contract framework. Coded with Rust and executed within the isolated sandboxing model by CosmWosm and Web Assembly enforces robust security and multi-chain compatibility



User interactions are handled through the current most proven and used wallet - Keplr[9] as a browser extension to execute transactions on the Nolus Web Application. Once the MVP phase is completed, a proprietary non-custodial wallet solution will also be made available for users to interact with the business layer of the protocol on both mobile and the web. Key management functionality will be implemented to secure a frictionless user experience, providing familiar means for non-crypto natives to create and access their wallets. User keys will be split via a threshold scheme into shares, secured by a mixture of authentication methods and user devices

6. The leading BFT engine for building blockchains
7. The world's most popular blockchain framework
8. Secure, multi-chain smart contracts
9. Keplr Wallet

Technology

NETWORK COMPONENTS

To facilitate the active development of the protocol and at a later stage of the production release, three network instances need to be operational

DEVELOPMENT

Kickstarted using Starport [10] and deployed on AWS to allow rapid development and testing of the smart contracts and connectivity with the network

Regular purging will be performed to keep it quick and small in size

TEST

All network updates and changes will be rigorously tested before their production deployment. The test network will have a simple faucet to transfer NLS tokens and a blockchain explorer

PRODUCTION

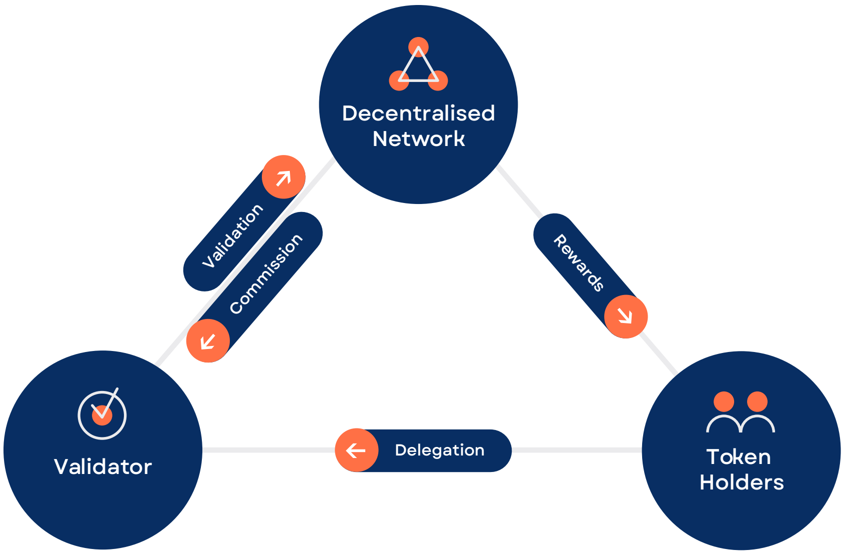
To be deployed on separate servers and even separate cloud providers. At a minimum, twenty nodes will be operating the network at launch, and new nodes will be connected on the next stage of the development

10. Every project deserves its own blockchain

TOKEN ISSUANCE, DELEGATION, AND REWARDS

The network native currency is the NLS token, and its parameters would be encoded into the genesis block

After genesis, each proposed and validated block issues rewards for the validator node. Each validator receives rewards based on their stake. The rewards are then distributed to all delegators. Each token holder will be able to delegate tokens to available validators. The validator has a more significant stake in the network with delegated tokens, thus creating more substantial rewards. The rewards are distributed to each delegator based on their token amount. The validator could take a percentage fee on the reward before distributing it to the delegators



Validation rewards for the first 96 months are calculated by $f(x)=-4.33275x^3 + 944.61206x^2 - 88567.25194x + 3.86335\times10^6$ where x goes from 0.47 to 96 following the months from 0 to 96. From 97 to 120, an equal amount of 103125 tokens will be rewarded each month until reaching the total amount of 150m tokens.

For example, the tokens rewarded for the second month are equal to

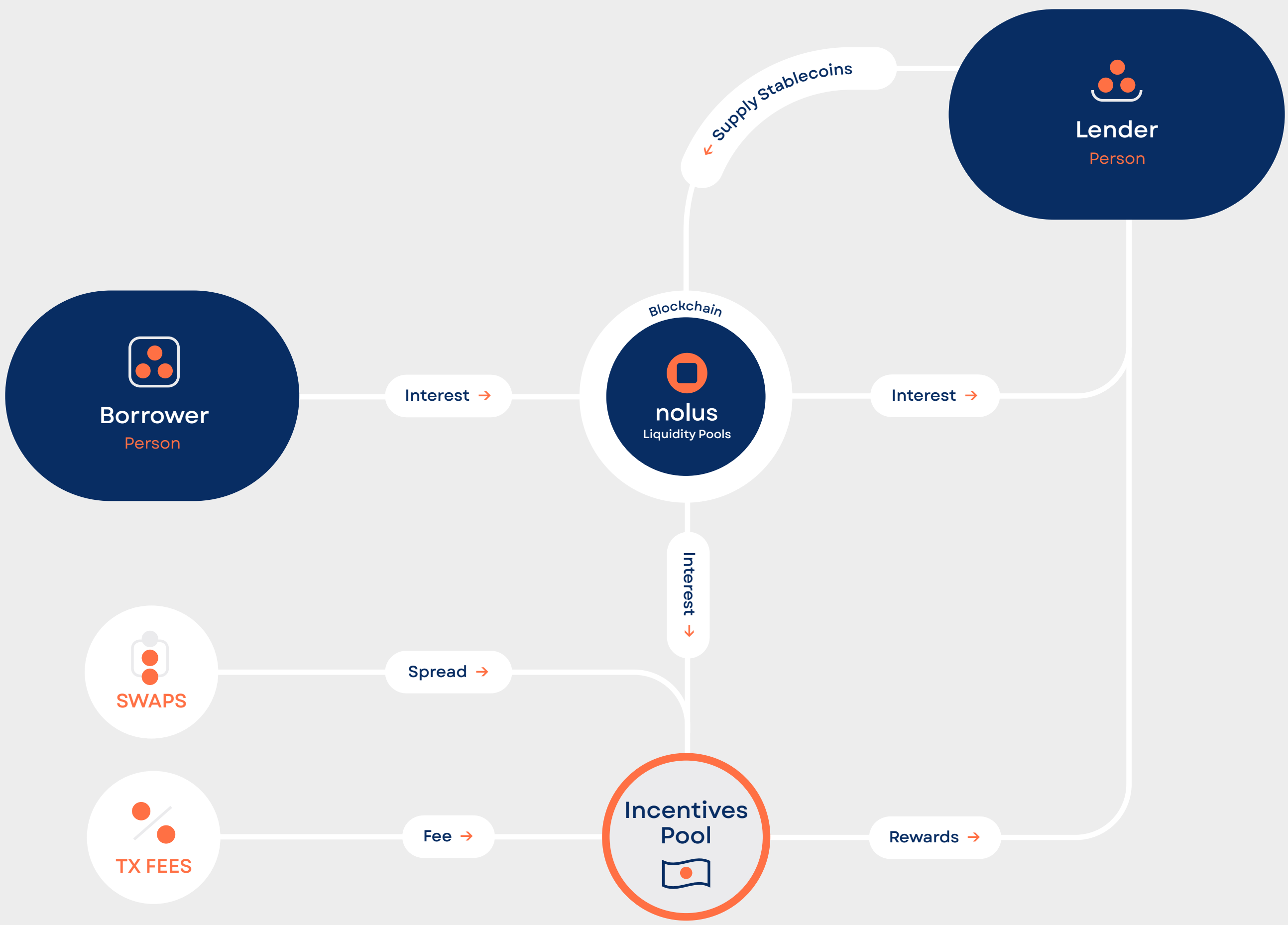
$$\int_{1.46510417}^{2.46020833} f(x)\,dx$$

Technology

DEFI LEASE

The DeFi Lease defines a money market between a lender looking to earn yield on stablecoins, and a borrower, looking to borrow more digital assets than his current equity. To borrow assets, the borrower locks up a downpayment as collateral and can leverage his holdings up to 3 times in a preferred digital asset

The Protocol sources its deposit yields from the interest-bearing DeFi Leases and incentivizes lenders with additional rewards above the initially agreed interest by releasing NLS tokens from the Incentivization Pool

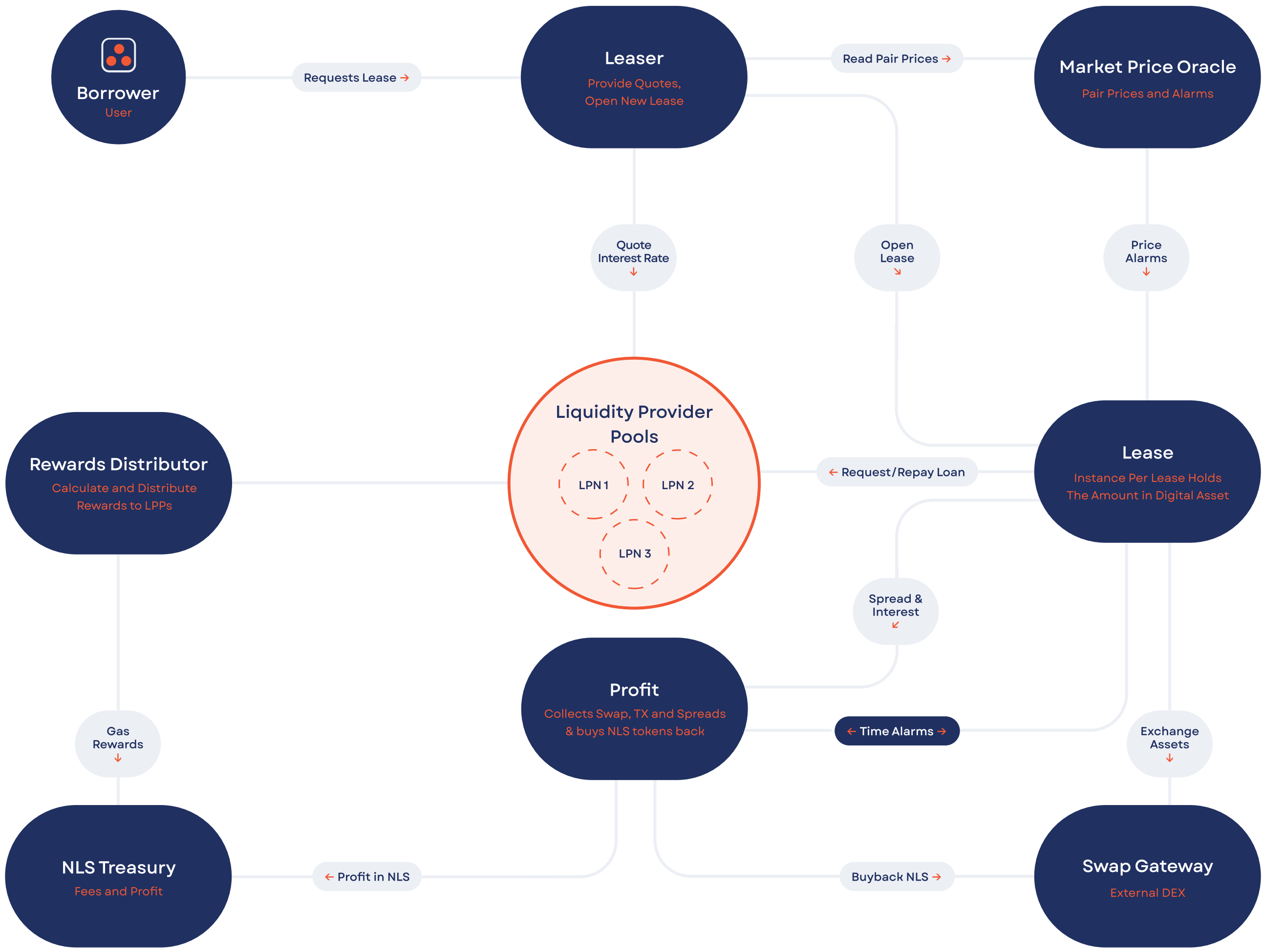


Technology

LEASE (BORROW)

There is a Liquidity Providers' Pool (LPP) instance per denomination that serves all borrow requests and repayments in that same denomination. LPP calculates the total principal and interest due and keeps details of the opened loans. Each LPP instance calculates a fixed interest rate on a borrow request and a total liability amount. LPPs do not deal with currencies other than the LPP native one, LPN

All lease positions are created by the Leaser contract, which acts as a smart contract factory. One Leaser is connected to one LPP and, therefore, to one stablecoin currency, the liquidity pool's native currency, LPN. If a user wants to borrow USDC, they need to ask for the Leaser contract connected to the LPP with USDC as an LPN



Technology

Lease (Borrow) →

Opening a new Lease is made via the Leaser by providing only the down payment. The maximum amount to be borrowed is based on the down payment and the initial liability percentage

Suppose the borrower has open liabilities that do not meet the desired conditions set within the protocol. In that case, the system needs to sell (partially or fully) the borrower's collateral to remain solvent. These conditions are defined in two invariants:

LIABILITY COVERED

If the current liability of the position is greater than or equal to the max liability, then the invariant is broken, and a market price alarm notification message is sent. Given that the healthy liability is less than the max liability of the Lease, the liquidation amount is either the lease amount itself or the amount that is enough to guarantee a healthy position after the liquidation event has occurred. This liquidation amount is then swapped to LPN and is used as an input to the repayment algorithm. If an excess amount is returned, it is transferred to the Profit contract

INTEREST COVERED

Suppose the borrower has an outstanding margin or loan interest left after the defined interest payment period has passed. In that case, a grace period begins during which the user has the chance to repay their owed interest. If there is no payment, the invariant is broken, and the repayment algorithm is conducted using the leased amount

Technology

Lease (Borrow) →

INTEREST

Nolus Protocol is designed to work on a cash basis model where actual yield rewards lenders. Interest from DeFi Leases will be due for collection in certain periods and, if not paid, will be automatically deducted from active DeFi Lease positions

The DeFi Lease interest rate is derived from the current utilization level of borrowed funds. When a higher proportion of lent funds are borrowed, the interest rate will go up, and when the opposite is present, the interest rate will go back down. The loan interest rate calculation is not exclusively reliant on the borrower's base utilization rate but also consists of a more elaborate algorithm that considers various factors such as overall asset capitalization, trends, and asset volatility. These factors are more precisely measured due to a sequence of historical data points that further enhance the algorithm and are asset specific. Ultimately, the goal is to define an asset risk framework through key features contributing to its performance and introduce them along with different optimal borrower utilization levels and base interest rates for the different assets

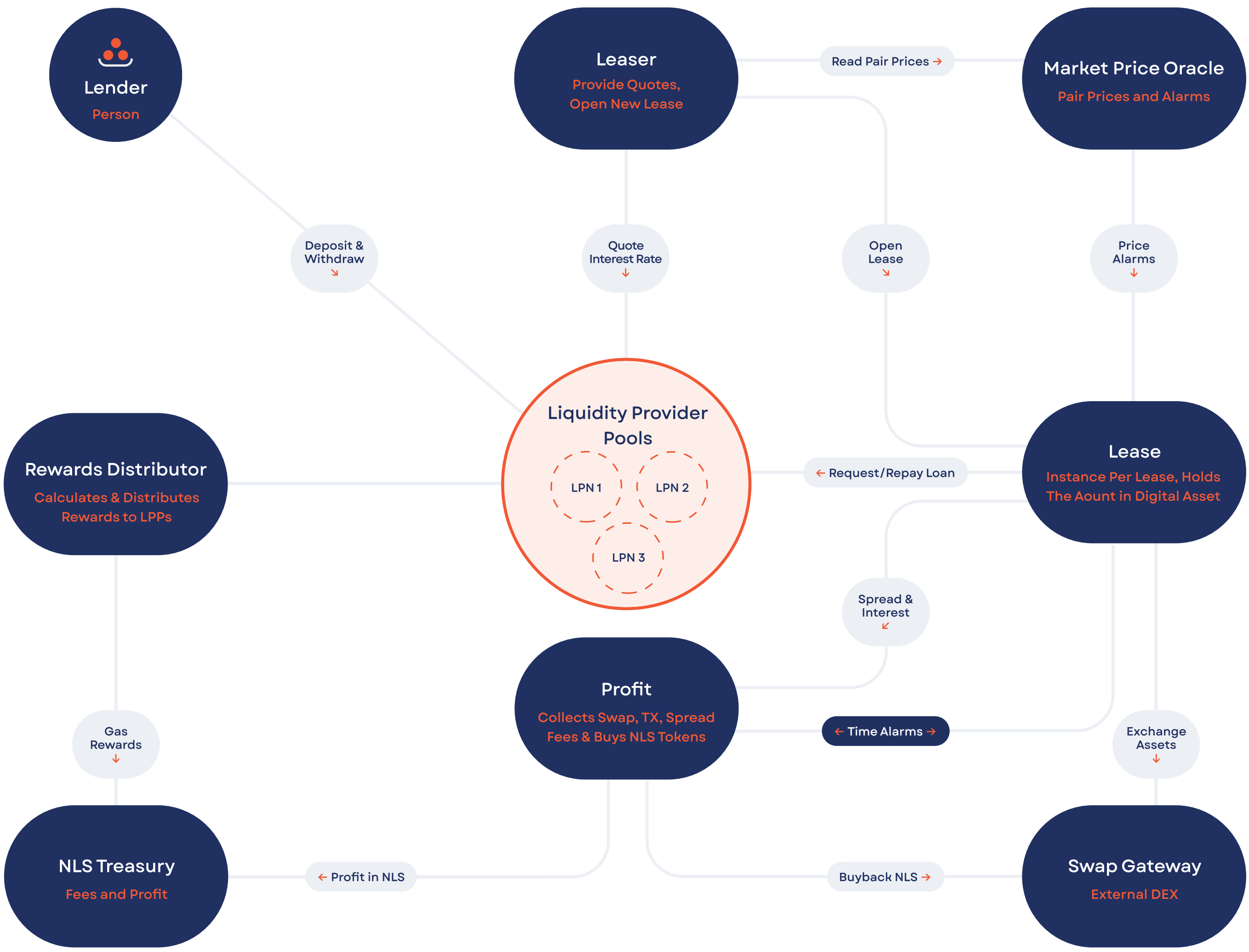
Additional parameters representing the environment's effect in terms of expected asset dynamics will be considered as well

Technology

LEND (STABLECOINS)

There is a Liquidity Providers' Pool (LPP) instance per denomination (LPN, i.e., native currency of an LPP), serving all lenders that provide liquidity in that same currency. Upon deposits, lenders obtain an amount of CW20 interest-bearing token or nLPN. Interest amounts are computed via index-based interest accrual

Each nLPN represents a fraction of the deposited amount relative to the total amount of the pool. The interest accrued and paid by the borrowers enters the pool and increases the nLPN price. Once a lender withdraws nLPN, the received amount includes the interest accrued for providing the loan to the borrowers



DEPOSIT LPN AND MINT NLPN

If a user wants to become a lender in an LPP, they need to have some LPN in their wallet, for example, USDC.

Since lenders are depositing to a pool, they need a receipt token back. It guarantees a pool share and can be used to withdraw the underlying assets. The balance of this receipt token is introduced to the state of the LPP smart contract initialized at 0 alongside an additional parameter describing its initial price. The price of the underlying LPN tokens is also specified as another parameter

If the balance of the nLPN tokens is empty, then the price of a single nLPN token would be equal to the initial derivative price (1 nLPN = 1 LPN). Otherwise, one needs to take into account the newly deposited LPN tokens and the loan interest rate from the borrowers

As time passes, the nLPN to LPN ratio will increase, which means one nLPN token would increase its price relative to a single LPN token

WITHDRAW LPN (BURN NLPN)

To withdraw LPN tokens, the wallet address needs to have a positive amount of nLPN tokens. The request can be called multiple times, and the amount can be withdrawn in tranches

Afterward, the balance of the nLPN in the LPP smart contract is decreased accordingly alongside the balance of the LPN tokens. Should the user wish to withdraw everything, then the rewards will be claimed and the user will not be a lender anymore

REWARDS

Each LPP instance regularly receives rewards from the Rewards Dispatcher smart contract based on LPP instance's total value locked (TVL) and the cumulative TVLs of all other LPP instances. The LPP keeps track of incoming and outgoing rewards, as well as minting and burning lenders' CW-20 tokens by maintaining a global amount of rewards in uNLS per nLPN

Each new reward increases the global reward per nLPN. When a lender deposits or withdraws/burns nLPN, rewards accrued by that lender for the balance so far is calculated based on the value of the global reward per nLPN. That amount is added to the pending rewards balance of uNLS for that user

Technology

SUPPORTED ASSETS

IBC [8] provides seamless bidirectional communication (transfer of native assets) with other Cosmos-based blockchains. With the Axelar [9] gateway, the functionality extends further, making transfers available for all supported EVM blockchains

DEX

Nolus Protocol will utilize Interchain Accounts [10] to permissionlessly access application features of another blockchain and carry out any action native to that chain. The complex flow of sending and swapping assets to a specific AMM blockchain or application will be handled entirely by the protocol's smart contracts, the latter being a dramatically improved user experience where all interactions occur solely from the protocol's UI

FIAT RAMPING

To secure a seamless experience, the users could on and off-ramp directly from the Nolus Protocol. The ramping feature will be enabled in partnership with a third-party provider by embedding their widget into the application

8. Inter-Blockchain Communication Protocol
9. Axelar - Permissionless Network for Cross-chain Applications
10. Interchain Accounts - Composability to the Cosmos Ecosystem

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Keplr Wallet

Inter-Blockchain Communication Protocol
-
IBC Protocol

Axelar - Permissionless Network for Cross-chain Applications
-
Axelar

Interchain Accounts - Composability to the Cosmos Ecosystem
-
Cosmos Blog

Disclaimer

1. VOLATILITY OF CRYPTO ASSETS

THE VALUE OF CRYPTO ASSETS OF ALL TYPES (INCLUDING CRYPTO ASSETS CALLED “STABLE COINS”) CAN SIGNIFICANTLY INCREASE OR DECREASE. THERE MIGHT BE A SUBSTANTIAL RISK THAT THEY LOSE THEIR ENTIRE VALUE. THIS IS VALID FOR NOLUS TOKENS (NLS), AS WELL.
You should carefully consider whether purchasing, leasing, and holding crypto assets are suitable for you in light of your financial condition

2. RISKS ASSOCIATED WITH CRYPTO LEASING FOR BORROWERS

Nolus DeFi Lease product only protects you from negative balance. The collateral you provide to enter into a crypto lease may be partially or entirely liquidated due to nonpayment of the lease, a drop in price of the collateral, or other reasons. Nolus does not protect you from market conditions. You shall not receive any “margin calls” and shall be required to follow up on market conditions on your own and provide capital to the smart contract as necessary if you do not wish for your positions to be liquidated. The liquidation is automatic and is not executed by Nolus Platform Ltd., but by automated Liquidators acting on the Nolus Network. Interest rates may be subject to change and increase based on market conditions and liquidity providers. You should familiarize yourself before entering into a DeFi Lease Agreement with the concepts of “margin trading”, “liquidation”, “leverage”, “collateral”, “debt” and other financial concepts that may apply - the list is not exhaustive

3. RISKS FOR LENDERS

In the case where you choose to provide liquidity with your assets in the Nolus DeFi pools - you may lose your entire capital due to technical errors in the smart contract, a significant drop or rise in prices of the locked assets, nonpayment from borrowers, or other unforeseen reasons. Rewards may decrease in quantity and/or value at any time to such extent that lending is no more profitable

4.NO FINANCIAL PROMOTION

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Nolus Platform Ltd. is a startup entity without prior records. The “Nolus Crypto Lease”, “Nolus Platform”, “Nolus Network/ Nolus Protocol”, “Nolus Token”, “NLS” are blockchain products at prototype level under development currently.
The entire ecosystem is an experiment without prior proof of concept, proof of utility, or other records that prove the feasibility of the project.
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It might turn out that the entire project nature needs to be altered to comply with international regulatory standards, thus the products may have to become centralized to receive licensing.
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