TheAstroNexus

WhitePaper

Catalogue

1.Introduction

AstroNexus is the next-generation blockchain infrastructure for WEB3.0, which fundamentally solves the security issues caused by managing assets in EVM smart contracts through allowing miners to record and manage ledgers of smart contract assets using a UTXO based smart contract transaction model. This breaks the blockchain trilemma, solves cross chain security issues and breaks the “island” effect in the current blockchain networks through the AstroNexus decentralized cross chain protocol; solves transaction security issues through the Non Custodial Exchange model. AstroNexus, with its unique Non Custodial Exchange (NCX) and Omega Virtual Machine (OVM) smart contracts, is leading the innovation of global blockchain infrastructure. Our vision is not only to create a more efficient and secured global standards for blockchain technology, but also to promote the free flow of digital assets globally in an open and transparent decentralized network.

2. Overview

2.1. Vision of AstroNexus Cross Chain Ecosystem

The core mission of AstroNexus is to solve the fundamental problem in existing blockchain technology: to enable global crypto assets to flow freely, securely, and efficiently among different blockchains. Flow of assets in existing blockchain systems are usually limited to their respective closed networks and cannot move across chains, resulting in a restricted global circulation of crypto assets. AstroNexus breaks this limitation through technological innovation in the AstroNexus cross chain ecosystem, enabling decentralized free circulation of assets across all global blockchain networks.

AstroNexus' goal is to build a global crypto infrastructure through technological innovations, to enable inter-blockchain operation through AstroNexus FOC cross chain protocol and Layer 2 solutions. Our technology will evolve blockchain from a single Fin-Tech tool into the infrastructure of the global digital economy.

2.2. AstroNexus Architecture and Key Features

The AstroNexus architecture aims to bring leading technological innovations to the blockchain industry, to build a highly decentralized, secured, and efficient multi-chain interactive ecosystem. The AstroNexus features the following core innovations:

AstroNexus FOC: Through AstroNexus FOC, AstroNexus has achieved decentralized cross chain value circulation on a global scale. Unlike existing cross chain bridges which are centralized solutions, AstroNexus FOC ensures secured and efficient asset transfers between different chains through a decentralized miner collaboration mechanism, completely eliminating security risks in cross chain transactions.

OVM Smart Contract: AstroNexus OVM Smart Contract technology enables miners to keep ledgers of assets issued by start contracts, allows all parties to a transaction can clearly express their intentions and miners verifying their expectations are met in contract executions. This mechanism greatly enhances the security of smart contracts and reduces the potential risk of asset loss caused by code vulnerabilities or user errors.

3. Background and Opportunities

3.1. The State and Challenges in the Blockchain Industry

Since the birth of Bitcoin, blockchain technology has rapidly developed and evolved from a cryptocurrency technology to architectures supporting decentralized finance (DeFi), decentralized applications (DApps), smart contracts, and cross chain transactions. Despite the rapid technological advancements, existing blockchain networks are still troubled by some significant limitations:

Islands of Values: Each blockchain system operates independently, and assets cannot flow freely between different blockchains in a decentralized manner, thus severely limiting adoption of blockchain technology.

Security risks: Rampant code vulnerabilities in smart contracts and hacker attacks on cross chain bridges, often results in huge financial losses.

Low transaction efficiency: Due to the decentralized nature of blockchain, transaction confirmation time is long and transaction fees are high, especially in cross chain transactions, where efficiency issues are particularly severe.

3.2. Opportunities in the Blockchain Market

The rapid development of the global digital economy and the growing demand for decentralized technology have brought enormous opportunities for innovation in blockchain technology. According to the forecast data of the global blockchain market, the market size of the global blockchain industry is expected to reach trillions of dollars by 2030. AstroNexus' innovative technology not only caters to this trend, but also creates a vast market space by addressing key issues facing the current blockchain industry. In the future, AstroNexus will not only serve the blockchain industry, but also deeply empower multiple fields such as global financial markets, digital identity, and intellectual property protection.

4. Core Technology and Innovation

4.1. AstroNexus One-Click SDK

AstroNexus SDK is an open-source framework for building blockchains with a POW+POS dual-mode consensus protocol. Blockchains built using AstroNexus SDK are commonly referred to as application specific blockchains.

The goal of AstroNexus SDK is to make it easier for developers to create custom blockchains, that can be interoperable with other blockchains in FOC network. The blockchains created with the SDK support AstroNexus' consensus protocols. The SDK is open source and is designed to be modular and available to everyone. Based blockchain is built from composed modules, most of which are open source and can be used by any developer.

4.2. AstroNexus FOC Cross Chain Ecosystem

AstroNexus FOC is AstroNexus' core cross chain protocol, which enables secure and efficient value transfer between different blockchain networks through a decentralized miner collaboration mechanism. AstroNexus FOC completely eliminates security risks of cross chain bridges, while improving the efficiency of cross chain transactions at the same time, thereby providing seamless cross chain experiences for users.

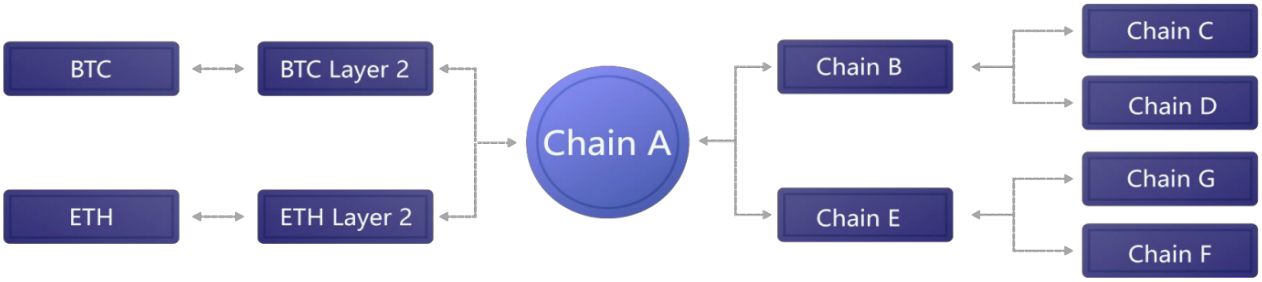
AstroNexus FOC achieves free flow of assets across different chains, completely breaking the current situation of isolated blockchain islands in the industry. Through AstroNexus FOC, AstroNexus connects various blockchain networks, allowing users to freely operate resources on different chains without relying on centralized institutions. This technology not only greatly improves liquidity of assets, but also provides users with unprecedented security and protection.

Technology	Cross-Chain Bridge	Polka dot/Cosmos	FOC
Completely Decentralized	No	No	Yes
Need to transfer assets to a wallet at source	Yes	Yes	No
Need contracts to issue assets at receiving end	Yes	Yes	No
Data transmitted in a decentralized way	No	Yes	Yes

AstroNexus FOC is a blockchain cross-chain protocol that enables decentralized circulation of value between different blockchains. In Family of Chain (FOC) there are two types of blockchains: Base Chain and Transfer Chain. Each Base Chain or Transfer Chain is a blockchain network by itself. A Base Chain is responsible for processing user transactions, while a Transfer Chain is responsible for asset transfer between chains. These chains form a network according to a certain topological structure, just like the Internet has certain topological structure of computers and routers formed according to the TCP/IP protocol. According to this topology, each Base Chain is connected to a Transfer Chain (upstream), and each Transfer Chain can connect to multiple Base Chains and Transfer Chains (except for the root, each chain has only one upstream connection). The Base Chains and Transfer Chains form a tree structure, with a Transfer Chain (root) at the top responsible for global resource allocation. This topology structure is expandable and can allow any number of blockchains to be linked into FOC.

The connection is not a connection in physical sense, instead it is in a protocol sense. Each Base Chain node executes both the conventional blockchain transaction processing protocol and the SVP protocol of the Transfer Chain it is connected to. Each Transfer Chain node executes both its own cross chain transfer protocol and the SVP protocol of all its associated Base Chains and Transfer Chains. Base Chains and Transfer Chains adopt a unified block structure and value representation scheme (UVD). Blockchains that do not directly support the FOC protocol can be connected to FOC through a Layer 2 that supports the FOC protocol.

As shown in the following figure:



For example, to transfer assets from Chain D to Chain C, the first step is to record a cross chain transaction in Chain D. In such transaction, one of the output scripts contains ID of Chain C and a user address in Chain C. When a Chain D node processes the transaction, because the chain ID in the output script is not Chain D, the output item will not be added to the UTXO table, thus this part of the asset disappears from Chain D's ledger (instead of being transferred to a wallet, therefore it cannot be stolen). A Chain B node executes the SVP protocol of Chain D. When the node encounters the SVP transaction, it will pack the output item into a block of Chain B. A Chain C node executes the SVP protocol of Chain B. When the node encounters the SVP output item, because the chain ID in the output script is Chain C, Chain C will pack the TXO into a block and record it in its UTXO table (therefore assets that disappear in Chain D appear in Chain C without the need for a contract to issue the asset), and the transfer is completed. The whole process is entirely completed by miners in decentralized manner, without the need for a Chain D wallet to hold the transferred assets or a Chain C contract to issue mapped assets.

Compared against other current technologies, this solution has better decentralism and security. The current cross chain technology is mainly divided into two types: cross-chain bridges and cross-chain protocols. Cross chain bridges are fully centralized, where users can transfer assets from in a source chain to a wallet of the cross chain bridge operator, who issues mapped assets to customers on a target chain. Cross chain bridges sometimes also perform an exchange step, where customers receive another type of asset instead of a mapped asset, such as in various flash exchanges. Because this type methods must send assets to a centralized wallet, there exist security risks, either due to hacker attacks, or embezzlement by the operators.

In contrast, the FOC protocol eliminates the risk of centralism by allowing decentralized miners to manage contract assets, making cross-chain asset transfers more secure. The FOC protocol achieves decentralized cross-chain transfer of assets by managing the UTXO tables of the source and target chains. When a user initiates a transfer on the source chain, the asset is no longer locked in a centralized wallet, instead it "disappears" from the source chain's ledger and appears as a new UTXO on the target chain, ensuring the safe circulation of cross chain assets.

For a blockchain that does not support FOC protocol (such as BTC, ETH, etc.), cross-chain functionality can be implemented by deploying a Layer 2 that supports FOC. In the Layer 2, miners need to pledge assets to participate in mining, and users' assets will be transferred to a multi signature wallet of miners. When miners exit mining, they must settle these wallets before the pledged assets are returned. This mechanism ensures that user assets are securely held in a decentralized manner, avoiding security issues of centralism in traditional cross chain bridges. Through this decentralized design, the FOC protocol effectively addresses security and trust issues in cross chain transfers, making management of cross chain assets more transparent and secure.

4.3. OVM Smart Contract

The biggest differences between AstroNexus' OVM smart contract technology and traditional smart contracts are security and transparency. Through this technology, users can clearly understand and give consent to the execution results of smart contracts before they are logged, reducing risks in the transaction process. At the same time, miners can verify the legitimacy of transactions and ensure that the execution of each contract is in accordance with the intentions of both parties. This innovation not only enhances the security of smart contracts, but also lays the foundation for more kinds of applications.

Technology	**EVM**	**OVM**
Book -keeper	Contract	Miner
Transfer handler	Contract	Miner
Ledger	Centralized	Decentralized
User’s controlled over asset	Indirect, through contracts	Directly by private key
Ready for decentralized cross chain transfer	No	Yes

Comparison of OVM Smart Contract and Other Smart Contracts

AstroNexus has proposed the OVM smart contract model. In this model, users can express their expectations for the transaction results, while smart contracts attempt to meet their expectations or express their own expectations. Nodes verify that both parties' expectations are met before recognizing the transaction legitimate. This model includes:

- User submits a UTXO style partial transaction
- Node launches virtual machine to execute smart contract call
- Smart contracts add inputs, outputs, or definitions to the transaction
- Node verifies integrity of the transaction, and only integral transactions are packaged into blocks

Let's illustrate this model with an example. Assuming a smart contract issues α coins and announces that users can exchange 2 ω coins for 5 α coins. Users who wish to make a trade can submit an incomplete transaction to a node as follows:

Input	**Output**
UTXO（2ω)	2 ω+Contract call script
	5 α+User lock script

The meaning of this transaction is that the user gives 2 ω coins to the smart contract and requests 5α coins. Due to the presence of a smart contract call script in the output of the transaction, the node executes the smart contract program. During execution, the smart contract adds a UTXO worth 5α belonging to the smart contract to the input list of the current transaction and returns a result of success.

Input	**Output**
UTXO（2ω)	2 ω+Contract call script
UTXO（5α)	5 α+User lock script

The node verifies integrity of transactions, that is, whether the input and output of various coins are equal. Here, the input added by the smart contract being equal to the output requested by

the user, the transaction is legitimate. If the smart contract adds 4 or 6 α coins instead of 5 α coins, the transaction will be deemed illegitimate and neither party will suffer any losses.

Because what the user received is a UTXO output, there is no need to rely on smart contracts to keep their accounts. Even if the smart contract still maintains a ledger, this ledger has no external effect and does not affect the ownership of the user's assets. Therefore, neither smart contract publishers nor hackers can steal users' assets.

In OVM smart contracts, contracts do not simply meet user expectations, they can also express their own demands. For example, in a cash-on-delivery scenario, when a user initiates a contract call to accept delivery, the contract execution can request a payment by adding an output with the contract as recipient to the transaction. If the user does not provide a matching input, the delivery will not be successful.

Due to use of UTXO model, OVM smart contracts allow multiple smart contracts to be called in one transaction, thereby allowing combination of multi-party contracts. In the context of cash-on-delivery, the parties involved include the buyer, seller, and carrier. Both the seller and carrier can participate through smart contracts, and the entire transaction remains atomic. This is difficult to achieve in the current Ethereum smart contract model because at least two independent smart contract calls are required, thus posing a risk of fraud.

	Current Smart contracts	**OVM Smart Contract**
Intention expression	Transfer Ether to the contract; The call parameters understood by the contract	The result expected by the initiator of the transaction; Any token can be transferred to the contract; The call parameters understood by the contract;
Execution	As long as the contract is successfully executed, the user must accept the result	The node verifies that contract has provided the expected result. If the result does not match, the transaction will fail
Results of execution	Stored in contract records	UTXO output, only the initiator can unlock it
Security	Contract phishing, contract program errors, misunderstandings leading to contract execution results that do not meet customer expectations; Hacker attack on contracts leads to theft of customer assets	Contract phishing, contract program errors, and misunderstandings will all be rejected and will not result in user losses; Hackers cannot steal user assets by attacking contracts
Ledger	Contract managed, centralized	Miner managed, decentralized

Comparison between OVM Smart Contract and Ethereum EVM Smart Contract

4.4. Non-Custodial Exchange Model (NCX)

The NCX model is a major innovation of the AstroNexus, which provided a decentralized trading environment for users all over the world without the need to custody their assets. In traditional centralized trading platforms, users must entrust their assets to the platform for transaction matching, which brings huge trust risks such as asset misappropriation or theft. AstroNexus' NCX model ensures that users always have control over their assets until the transaction is completed, thereby eliminating the risks due to centralized custody and smart contract vulnerabilities.

Non-Custodial Exchange is a trading model where strangers can complete asset transactions without the need to entrust assets to a third-party (exchange) through order listing and matching. Whether in a traditional exchange (such as a stock exchange) or a virtual asset exchange (such as Binance), order requires customers to put their assets under custody of the exchange first. The exchange cannot match the order first and then ask the user to deliver the asset later in a trade, as this will result in the transaction failing due to the user's change of mind.

Listing an order is an expression of trading intention. In a centralized exchange, listed order information includes account, trading pair, price, and quantity. The exchange will verify the amount of assets in the account that need to be sold. In Non-Custodial Exchange mode, a listed order is in the form of a signed incomplete transaction, the transaction input and signature of the order are verified, and the price is reflected as the proportion of the input quantity and the output quantity. Such incomplete transactions can be published in any way without security concerns, because they are inherently tamper-proof, and will not be recognized by miners as legitimate transactions. Since no account is required to order, NCX has a high degree of anonymity, resulting in better protection of user privacy.

When two orders with equal prices and opposite trading directions appear, there is a match. By simply merging the two signed incomplete transactions into one transaction, a legitimate transaction comes to existence which can pass verification of miners. When the transaction is logged in a ledger, the asset exchange between these two individuals is also completed. For example, the UTXO transactions below illustrates the trading process between A and B buying and selling 2 ω and 5 α:

1. **A lists and order**

Input	**Output**
UTXO (2 ω) and signature of A	5 α+ Locking script for A

2. B lists an order

Input	Output
UTXO (5 α) and signature of B	2 ω+ Locking script for B

3. Successful Matching, Merge the listed orders

Input	Output
UTXO (2 ω) and signature of A	5 α+ Locking script for A
UTXO (5 α) and signature of B	2 ω+ Locking script for B

This is the simplest scenario, where both parties' listed orders match perfectly (applicable to all or none orders). In general, it may not be possible to find a perfect match in quantity. In this case, the output in the pending order is not a locking script for oneself, but a contract call that can verify outputs to the user and either transfer the difference back to the user or deposit it into a contract for continuing the listed order.

According to this model, clients have complete control over their respective assets and use of the assets are not affected by listed orders until the transaction is completed. The two-way payment and receipt are completed within one atomic transaction. It will never happen that a user does not receive what is bargained for when a payment has been made. Throughout the entire transaction process, clients do not need to transfer assets to an exchange address, instead they only need to provide a signed incomplete transaction. This transaction cannot be executed independently because the input and output are not matching. This transaction can only be included in its entirety in another transaction because it contains a signature, and it is impossible to use only the input without including the output, which means that the customer's price is met. Implementation of this exchange model relies on AstroNexus' smart contract technology. No other blockchain can achieve this function. Since there is no need to transfer assets to the exchange, the assets are directly exchanged between two clients in the transaction, and the exchanges are executed simultaneously, so clients do not need to worry about the security of the assets. Assets are secured absolutely. This exchange model is

safer than centralized exchanges without drawbacks of AMM trading contracts such as taking of user funds, slide point, MEV, etc.

Exchange model	CEX	DEX	NCX
Custody of assets required	Yes	No	No
Trading pair requires pool of funds	No	Yes	No
KYC is required	Yes	No	No
Decentralized	No	No	Yes
Slide point	No	Yes	No
MEV	No	Yes	No

Comparison of AstroNexus NCX model and other exchange models

By combining cross-chain technology and Non-Custodial Exchange technology, AstroNexus can achieve flash exchange functionality in the wallet without the need to cooperate with centralized exchanges.

4.5. AstroNexus UAD

The widespread application of blockchain technology has led to the emergence of various forms of digital assets (such as tokens, NFTs, contract assets, etc.), which are represented and managed differently between different blockchains, resulting in high complexity in cross chain operations. To address this issue, AstroNexus has introduced the AstroNexus UAD.

UAD provides a standardized way of asset representation, whether it is fungible tokens, non-fungible tokens, geographical tokens, or copyright tokens, all of these assets can be uniformly represented and managed on the AstroNexus network through UAD. This not only greatly simplifies processing of cross chain transactions, but also provides higher flexibility for asset management. This technology solves the problem that different type assets can not flow effectively between different blockchains, laying the technical foundation for large-scale crypto asset transactions in the future.

Tokens represent assets, and to a large degree, application of blockchain is limited by its ability to represent assets. On AstroNexus, a token is a triple: type (a 64 bit value), price (a 64 bit value or hash value), and right set (a hash value representing a set of rights). This scheme provides a unified way of representing various forms of value and allows for the splitting of tokens based on rights. The type value is further divided into two parts, with the highest 24 bits being a chain ID, representing a blockchain in FPC, and the lower 40 bits being the asset type ID. Each smart contract can assign a unique asset type ID in its chain. In this way, assets generated in any chain in FOC can be managed by miners of other chains, providing a foundation for decentralized cross chain transfers. And the types of assets can be coins (a number), NFT (a hash value), or geographical (A polygon). Assets can have user (contracts) defined attributes and be split based on these attributes, thereby supporting the widest range of asset types and operations.

4.6. ZooPump Meme Launch Platform

ZooPUMP Meme Launch Platform is a platform that helps create, distribute and promote memes through blockchain technologies. ZooPUMP The total supply of Meme launch platform token PMPM is 210 billion, 100% full circulation. All PMPM tokens will be given to contributors of the ecological system through airdrops. ZooPUMP Meme launch platform enables creators to create and distribute NFT with cultural or entertainment elements and build a global user base and market for them using the decentralized characteristics of blockchains.

The main features include:

Creator Tools: Provides easy-to-use tools to help creators quickly generate and publish Memes. Through a decentralized platform, creators can easily issue Meme coins and publish them in the market.

Decentralized Marketplace: Allow users to purchase, sell, or trade Memes on a decentralized marketplace, helping creators generate revenue through their Memes. Through blockchain technology, transactions are transparent and secure, ensuring that all transaction records can be publicly verified.

Community driven: These platforms typically gather a large number of Meme enthusiasts and holders, forming a vast community. The community can provide support and dissemination for Meme, thereby enhancing its visibility and market value.

Token Economy System: Meme launch platforms are typically integrated with their own token systems, allowing users to participate in creation, trading, or voting by holding or using the platform's native tokens, thus becoming a part of the platform ecosystem.

Liquidity and Value Growth: Through the transparency and immutability of blockchain, the value of Meme can be recognized by the public market. Users can obtain long-term investment returns by investing in or holding rare Memes.

5. Expected Return on Investment for Token Holders

5.1. Revenue Expectations

AstroNexus offers token holders a long-term, stable and diversified income model. As the project rolls out globally and the ecosystem expands over time, token holders will be handsomely rewarded at multiple stages.

Short-term gains (1-4 years): In the early stage of the project, the token holders value will be supported by deflation in total supply of ANEX. A positive feedback will be formed between ANEX cross-chain ecosystem and the DAPP application ecosystem.

Med-term gain (4-8years): With increased worldwide adoption of AstroNexus technology coupled with the growing number of partners, total supply of ANEX will decrease due to deflation and annihilation of tokens. By empowering more partners to form a cross-chain alliance, and promoting technical influences, ANEX will find more support for its value.

Long-term gains (8-12 years and beyond): In the maturity phase of the project, AstroNexus' technology will be applied on a large scale, encompassing a multitude of domains, including DeFi, NFT, RWA, Meme Launch Platforms, Non-Custodial Exchanges, Gamefi, DID, SociaFi, Metaverse, etc. The total supply of ANEX will undergo a significant deflationary process, with the final total amount remaining constant at 21 million, solute to Satoshi Nakamoto.

5.2. Sources of Income and Assurance

The AstroNexus transaction fees: Miners gain income in transaction fees from AstroNexus transactions.

Cross-chain transaction fees: Implementation of AstroNexus cross-chain technology will bring in a significant amount transaction fees for the platform. Each new public chain joining the AstroNexus cross-chain ecosystem requires at least five mining nodes, each of which requires collateral in ANEX. Participants who pledge ANEX and contribute to the maintenance of the network will receive a portion of the transaction fees.

Non-custodial exchange platform revenue: AstroNexus' NCX exchange model is appealing to users across the globe. NCX partners will have the opportunity to receive a portion of the proceeds.

5.3. Token Holder’s Incentive Programme

Early token holder incentives: AstroNexus will offer additional ANEX token bonuses to early holders. In addition to benefiting from the appreciation of the token price, early market entrants will also be rewarded with a lock-in reward, which will increase investment returns.

Long-term holding incentives： In order to incentive holders to hold ANEX tokens for a long period of time, AstroNexus will establish a long-term pledge plan whereby holders will receive a share of the network's revenues while pledging ANEX depending on time length of pledge.

5.4. Benchmarking and Risk-Adjusted Return Expectations

AstroNexus has a notable competitive edge in comparison to the revenue models of other prominent blockchain projects, such as Bitcoin and Ethereum. AstroNexus is poised better to address the challenges in the blockchain market through decentralized cross-chain technology and innovative smart contract mechanisms. According to industrial data, global applications and market demand for blockchain technology are experiencing a period of rapid growth. AstroNexus will perform better than competitors in long-term earnings through technology leadership and market adaptability.

5.5. Risk Management and Income Protection Mechanisms

The risks associated with investing in blockchain projects cannot be ignored. In order to safeguard holders' interest, AstroNexus has adopted multi-layered risk management strategy:

Technical Risk Management: Ensuring technical security and stability of the platform through regular security audits and smart contract code evaluations.

Market Risk Hedging: AstroNexus will reduce the risk of uncertainty due to market fluctuations through its diversified business layout and global marketing strategy.

Token Value Maintenance: AstroNexus' token issuance mechanism adopts a deflationary model, which gradually reduces the total supply of tokens over time, thus maintaining the long-term value of ANEX.

6. Deflationary Tokenomics

6.1. Token Distribution

Total: 438 million ANEX coins
POW+POS mining yields: 57% ANEX
Early contributors: 10% ANEX
Community reserve: 10% ANEX
Developer community: 8% ANEX
Development fund: 8% ANEX
Strategic cooperation: 7% ANEX

6.2. ANEX Mining

Total 438 million (fixed in program) ANEX coins will be created, of which 250 million will be created through mining. ANEX employs a POW + POS dual-mode consensus mechanism, where a block is generated every 3 seconds. Block reward is 6 ANEX coins initially, halves every 21 million blocks. Mining difficulty factor is adjusted every 14 days, where POW difficulty weighs 50% and POS difficulty weighs 50%. By providing either greater computing power or pledging more ANEX tokens, miner can increase the chance of winning ANEX mining right.

6.3. ANEX : Keys to the AstroNexus Ecosystem

Deflation by AstroNexus transaction fees: All AstroNexus transactions require ANEX as transaction fees, and 30% of the fees go to a black hole address and are destroyed.

30% of ANEX cross-chain fees go into black hole addresses: In the ANEX ecosystem, DeFi, NFT, RWA, Meme Launch Platform, GameFi, DID, SocialFi, and Meta-Universe ecology involve cross-chain transactions in their applications, which will cause ANEX coins to go to black hole and be destroyed. The ANEX Black Hole Annihilation and Deflation mechanism will gradually carry out in phases, and it is expected that each phase will be completed in four years. In the first phase, 40 percent of ANEX will be destroyed, 30 percent in the second phase, 15 percent in the third phase, and 10.206 percent in the fourth phase. The annihilation and deflation phase will terminate when total supply of ANEX is reduced to 21 million, in tribute to Satoshi Nakamoto.

7. Legal Compliance

7.1. Global Legal Compliance Strategy

AstroNexus' global expansion plans involve multiple countries and regions, therefore legal compliance is fundamental to the success of the project. Regulatory policies for blockchain and cryptocurrencies are rapidly changing globally. AstroNexus is committed to ensuring compliant operations in each of the world's major markets.

1. **U.S. Market:** AstroNexus will operate in the U.S. market in compliance with the rules of the U.S. Securities and Exchange Commission (SEC) to ensure that the project offering does not violate the US securities laws. At the same time, AstroNexus will comply with strict anti-money laundering (AML) requirements to ensure the safety of users' funds.

2. **European Market:** AstroNexus will comply with the operating framework in the European Union under the Markets in Crypto Assets Act (MiCA), in particular in accordance with the requirements of the General Data Protection Regulation (GDPR) with respect to cross-border transactions and the protection of user privacy.

3. **Asian Market：** In countries where blockchain technology is developing rapidly, such as Japan, South Korea, and Singapore, AstroNexus will comply with local regulatory requirements to ensure that the project aligns with fintech and cryptocurrency regulatory standards.

7.2. Compliance Strategy and Implementation Measures

Legal Advisory Team: AstroNexus has engaged legal counsel in multiple countries to ensure the project's global compliance in token issuance, exchange listing and operation process.

8. Introduction to the Team

8.1. Global Team

The AstroNexus team brings together the world's top blockchain technologists and developers from the Bitcoin and Ethereum communities, as well as fintech consultants and marketing professionals. The team members have held key positions in internationally renowned technology companies and financial institutions, and have rich industry experience and global vision.

8.2. Blockchain Technology Pionieers

AstroNexus DAO (Decentralized Autonomous Organization) is the world's leading blockchain development team with core members from the early days of Bitcoin and Ethereum. With years of development experience and deep technical accumulation, the team focuses on building the most scalable, secure and decentralized public chain infrastructure.

In terms of technology development, the team has made breakthroughs in the field of cross-chain technology, and has developed a highly efficient self-executing trust cross-chain protocol, ensuring secured interoperability of assets and data between different blockchains. The team has designed distributed consensus algorithms capable of handling high transaction throughput, meeting the performance requirements for enterprise-class applications in decentralized networks.

The team has reinvented smart contract, correcting the mistakes in EVM and alike. Today’s mainstream smart contract schemes are wrong as they are centralized at core. It is an expensive mistake to have smart contracts managing ledger of assets issued them, as millions of dollar worth of crypto assets are stolen each year due to the mistake. It makes these ledgers centralized because smart contracts are agents of their publishers. Smart contract are not decentralized entities, hence neither are the ledgers managed by them. OVM corrects the mistake by making assets issued by smart contracts managed by miners instead of contracts, thereby ensuing security and decentralization of the assets. We believe OVM will become mainstream smart contract technology.

9. Funds Spending Plan

9.1. Team Expansion and Operations

The AstroNexus project will expand the team globally and attract more top talent in the blockchain industry. Funds will be used for team building, operations and management, and recruiting more domain experts, including blockchain technology developers, marketing experts, legal advisors, and product designers, to ensure AstroNexus' continued innovation and efficient operations. Funds will be allocated as below:

Early contributors: 10% ANEX
Community reserve: 10% ANEX
Developer community: 8% ANEX
Development fund: 8% ANEX
Strategic cooperation: 7% ANEX

10. Future Development Roadmap

AstroNexus' development road map is divided into multiple phases, progressively achieving the goals of global expansion, technology optimization and industrial empowerment. The road map below identifies key milestones for AstroNexus in the coming years, providing token holders and partners a clear expectation of the long-term value of the project.

10.1. Phase 1: AstroNexus FOC Implementation and Early Market Expansion (2024 Q3-2025 Q2)

1. AstroNexus FOC implementation: Completing the development and testing of AstroNexus FOC, and formally launched the cross-chain functionality of the AstroNexus platform to enable seamless transfer of assets between different blockchains.

2. ZooPUMP Meme launch platform: Launch of ZooPUMP Meme Launch Platform to provide powerful tools for creators and users through blockchain technology. Support the creation, distribution and global promotion of memes. The platform will attract global users through an innovative model, bringing more activity and attention to the AstroNexus ecosystem.

3.Partner expansion: Achieve cross-chain interconnection with globally renowned blockchain projects.

4.ANEX listing on global exchanges: Pushing listing of ANEX tokens on mainstream exchanges to increase the liquidity and global influence of ANEX.

10.2. Phase 2: Deeper Expansion of Applications and Global Market Penetration (2025 Q3 - 2026 Q4)

1. Technology optimization and expansion: Continue to optimize the AstroNexus FOC and smart contract mechanism to ensure the high performance and security of the platform, and at the same time promote the further expansion of the scale of cross-chain asset transactions.

2. Global market promotion: Focus on expanding the markets in North America, Europe, Asia and the Middle East, and regularly organize global blockchain summits and technology exchange conferences to enhance the project's global visibility and influence.

3. Ecosystem development support: Launch a developer program to encourage more third-party developers to build decentralized applications (DApps) based on the AstroNexus platform, forming a healthy ecosystem.

10.3. Phase 3: Industry-Wide Empowerment and Large-Scale Ecological Adoption (2027 - 2030)

The long-term vision of AstroNexus is to realize large-scale ecosystem adoption on a global scale. To achieve this goal, AstroNexus will build a global decentralized cross-chain ecosystem through technological innovations, partnerships and community-driven efforts.

Cross-chain industry integration: AstroNexus' platform architecture is highly flexible and scalable, enabling seamless integration of multiple industry applications. Its multi-chain interoperability technology ensures that the platform can connect to different blockchain networks, breaking the limitations of a single public chain or a single on-chain ecosystem and truly realizing cross-chain ecosystem synergy.

Decentralized Applications (DApps) Ecosystem: AstroNexus will strongly support the development of decentralized applications and provide strong technical support and incentives to the global developer community. AstroNexus' open developer interfaces and tools will encourage developers around the world to build innovative applications based on the AstroNexus network, driving the expansion of the platform ecosystem.

Massive User Participation and Market Expansion: AstroNexus will attract global users through its decentralized technology and efficient and secure blockchain services, especially in emerging markets.

Smart Contract Automation and Innovation: AstroNexus' smart contract technology enables the automated execution of complex contracts with low latency and low cost through its highly optimized contract execution environment. In the future, AstroNexus will support innovative applications in the field of smart contracts in more industries, further promoting the popularization of automation services.

Technology and Ecological Evolution: AstroNexus will continue to drive technological innovation and provide a more secure, efficient, and convenient ecosystem for global users by continuously optimizing the underlying blockchain architecture, enhancing privacy protection mechanisms, and improving network scalability. AstroNexus' development goal is to become the leading blockchain

infrastructure provider for global industries and enterprises, and to empower the decentralized transformation of the global economy.

11. Risks and Countermeasures

11.1. Market Risks

The blockchain industry is highly volatile and the Project may be exposed to uncertainties arising from market fluctuations due to policies, market sentiment and technological developments. In order to mitigate the risks, AstroNexus has taken the following measures:

Diversified market layout: Displace the impact of market fluctuations on the Project through globalized marketing and diversified business models (e.g.,cross-chain technology, decentralized finance, AstroNexus UAD, non-custodian trading platform, Meme launch platform, etc.).

Market research and monitoring: Conduct regular market research to monitor changes in the global blockchain market and industry development trends, and adjust the strategy and direction in a timely manner.

11.2. Technology Risks

Blockchain technology is changing rapidly and AstroNexus is facing the challenge of technological change. To this end, the project will continue to invest in technology research and development to ensure that it remains at the forefront of blockchain technology. Technology risk mitigation measures include:

Security: AstroNexus conducts regular security audits to ensure the security of smart contracts, cross-chain transactions and network architecture. At the same time, the platform is embedded with multiple protection mechanisms to prevent hacker attacks and minimize the risk of technical loopholes.

Technical team expansion: Attract the world's top technical experts to join the project.

Patents: Timely file patent application in key market countries, such as EU, US, major east Asia and Pacific countries, to protect innovations.

12. Conclusion

AstroNexus excels in technological innovation, especially in providing breakthrough solutions in security, efficiency, decentralization of cross-chain asset circulation and smart contract model. Its FOC cross-chain protocol ensures trust transmission of cross-chain assets and decentralized coordination of ledgers through a miner collaboration mechanism, significantly improving the security and efficiency of cross-chain asset transfer and completely eliminating the security risks in centralized cross-chain solutions.

AstroNexus' OVM smart contract technology further enhances the transparency and security of smart contracts. The technology allows for the verification of transaction results against user intentions before contract execution is logged into ledger, ensuring complete consistency between user expectations and contract execution results, and effectively avoiding asset losses due to code bugs or malicious attacks. Compared with Ethereum EVM, OVM let miners instead of contracts to keep ledgers of assets issued by contracts. It not only solves the asset security problem, but also provides a foundation for decentralized cross-chain transfers.

AstroNexus' Non-Custodial Exchange (NCX) model avoids the trust risks associated with traditional centralized exchanges. Its decentralized exchange mechanism allows users to maintain control of their assets at all times during the trading process. Combined with cross-chain technology, AstroNexus' platform provides global users with a highly secure and efficient cross-chain asset trading environment.

In summary, AstroNexus has established a secure and decentralized multi-chain interaction ecosystem through implementation of an innovative cross-chain protocol, smart contract technology and decentralized transaction mechanism. This provides a technical foundation for the future large-scale application of blockchain in multiple industries.

13. References

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