

MOLECULAR FUTURE WHITE PAPER 2.0



2020

Future



1 BLOCKCHAIN TECHNOLOGY AND FINANCIAL MARKET

- Compliant Decentralized Stock Exchange 1.1
- 1.2 Custody ownership of our own assets
- 1.3 Faster, cheaper, and more reliable trading
- Market value comparison 1.4

MOLECULAR FUTURE -2. GLOBAL ONE-STOP DIGITAL ASSET SERVICE PLATFORM 06

- MOF ASSET MANAGEMENT 2.1
- 2.2 CRYPTOCURRENCY FINANCING MOF LENDING
- **DIGITAL ASSET GROWTH MOLECULAR FISSION** 2.3
- 2.4 LIQUIDITY MANAGEMENT
 - 2.4.1 Prospects of Molecular Liquidity Management Business in the Future 2.4.2 Molecular Future Liquidity Management Business 2.4.3 Molecular Future Liquidity Management Business
- 2.5 DECENTRALIZED EXN DIGITAL ASSET TRADING PLATFORM 2.5.1 tMolecular trading MT5 system 2.5.2 EXN MT5 platform prospects 2.5.3 EXN platform token MOF
- 2.6 ESTABLISH A BLOCKCHAIN INDUSTRY ECOSYSTEM

3. TECHNOLOGY IMPLEMENTATION PLAN

- DOMAINS 3.1
- 3.2 SUPER TRIBES
 - 3.2.1 Super tribe elections and replacement
 - 3.2.2 Rights and Obligations of Super tribes
 - 3.2.3 Consensus
- 3.3 CONSENSUST
- 3.4 PREVENTING ATTACKS
- 3.5 CROSS-CHAIN CAPABILITIES

References

01

28

PREFACE

Pitting against traditional systems we are used to today, various public blockchain projects have seen tremendous success over the years in improving accountability, connectivity, speed, transparency and privacy across just about every industry. We have seen specialized blockchain applications like Bitcoin (for payments), Monero (for privacy), and Ethereum (smart contract platform) which within its own protocol has enabled many distributed applications and projects such as Matic Network (for DApps) or Augur (for predictions) to thrive.

From a technological perspective, blockchain's characteristic of immutability offers users transparency and fairness, giving assurance that users' wealth is accurately accounted for. With the increasing popularity of digital asset transactions, the traditional financial industry is also beginning to play catch up and rapidly developing their infrastructure to include blockchain, signifying the increasing demand for a stable, efficient, and credible accounting and transaction system.

However, despite the rapid development of blockchain technology today, the global financial market is still dominating payments and transactions, with daily transaction amounts hitting the tens of trillions of dollars. There is still no real blockchain project in the field of finance that can replicate the complex infrastructure that supports a system of this scale; as such, the barriers to entry into this industry remains incredibly high. Since financial giants essentially monopolised this market, they determine the way users can manage their money, and they charge hefty fees every step along the way.

Fortunately, the advent and development of blockchain technology has levelled the playing field for people. Its ability to resolve the issues of trust and accountability has eliminated the need for third parties and allowed users to regain control of their assets. This is

where Molecular Future sees an excellent opportunity to disrupt the market. As an early project that successfully transitioned from traditional finance to blockchain finance, Molecular Future firmly believes that traditional financial markets that rely on centralized trading and management is destined to be eliminated by decentralization. People need a more just, fair, efficient and transparent blockchain financial infrastructure to meet their financial service needs.

Molecule Future will be driven by its forward-looking demand for the market and the professionalism of its financial services to create a comprehensive financial public chain that offers users a better alternative to the traditional financial service system they are used to today.

In order to meet the growing needs of users, the Molecular Future financial public chain has been upgraded to the Mega Operation System (MOS), and its main technical framework is the classic Byzantine fault tolerant (BFT) consensus algorithm. MOS is based on the interconnection of multiple independent blockchains in the form of "domains" and operates with the BFT consensus algorithm as the core driving force. The main domain of MOS is defined as the Mega Domain, the central management system that enables domains to communicate with each other.

As the world's first public blockchain project dedicated to financial services, Molecule Future has obtained the support and investments by well-known financial institutions such as HBCC Investments, Collinstar, Eagles Fund, China Fortune Holdings (0110.HK) and Molecular Group.



BLOCKCHAIN TECHNOLOGY AND FINANCIAL MARKET

PART01

The development of the MOS public chain is deliberately designed to mitigate the shortcomings of the traditional finance world by combining financial services and products with blockchain technology. Molecular Future is committed to providing users with blockchain technology-related investment products, institutional-level market trading software, media information, project information database, communities and other financial service systems.

Molecule Future's goal is to use its experience in the traditional financial industry and the blockchain field to successfully develop the world's first compliant decentralised stock exchange (see 2.5 for details), providing users with on-chain, real-time trading and liquidity management services.









1 1 COMPLIANT DECENTRALIZED STOCK EXCHANGE

One of the main reasons why blockchain technology is hailed as a revolution that will change money, business and the world is its innate property of accountability and security that arises from being a mass-replicated, distributed ledger. To illustrate, every block on the blockchain has to be verified by nodes and every new block produced contains verified data of the previous block; a malicious hacker would not be able to simply change the data in a given block, the hacker would have to alter the entire blockchain to change any data, but that in itself is impossible as it will require too much computing power. In the same way, we can make exchanges less vulnerable to hacking by running the entire system on a blockchain. This is called a distributed exchange.

The industry has seen dozens of hacks on centralised exchanges throughout the years but why do users still choose to trade on these exchanges despite its security drawbacks? This is mostly because centralised exchange can provide greater liquidity since



Features	Centralised Exchange	Decentralised Exchange
Safety from hacks	No centralised exchanges are immune to hacks. Many exchanges have fa- mously been hacked over the years	Lower risk because nodes are distribut- ed all over the world
Risk of infrastructure	Depends on security mechanism of operators	Little to no risk since nodes around the world work round the clock
Privacy	Little privacy since strict KYC require- ments are required	Very high level of privacy
Liquidity	High liquidity	Low liquidity due to immature prod- ucts and inefficient trading mecha- nisms
Transparency	Low transparency; centralised ex- changes do not publish operation and trading data	High transparency; all transactions are broadcasted on the chain

they can create deep orderbooks of limit orders. Naturally, exchanges that provide more liquidity will attract even more liquidity. For a decentralised exchange to compete with a centralised exchange, it would need to support deep orderbooks with limit orders. The issue is that many of the decentralised exchanges we see today requires traders to be online at the time of trade, which is why you see many decentralised exchanges with shallow orderbooks. Only a distributed exchange on a blockchain can allow users to submit orders and go offline; the blockchain matches and completes the trade on behalf of the trader.

COMPLIANCE DECENTRALIZED EXCHANGE

分子白皮书 2.0 M O L E C U L A R 02 / 32

1.2 CUSTODY -OWNERSHIP OF OUR OWN ASSETS

Current financial markets and stock exchanges are all centralised. The main implication of a centralised exchange is that users' assets and data are handled by a third party which acts as a custodian. For example, the New York Stock Exchange uses a third-party custodian to manage the investors' assets. This has several drawbacks. Firstly, investors are not in control of their assets. This means that their assets can be frozen or blocked without consent – this has happened on many occasions, resulting in huge losses for the investors. Secondly, these assets being in the control of one central entity makes it an attractive target for hackers. Over the years, investors have lost money as well as exposed their private information because of hacks. With the development of blockchain technology, investors regain control of their own assets and cut out an unnecessary middleman that charges hefty fees and are vulnerable to hacks and mismanagement.t

This also presents an opportunity for the custodian market to be disrupted. The top 400 global financial asset managers cumulatively manage a total of US\$73.8 trillion in assets in 2019. Custodian fees typically fall between 0.1% to 0.15% of assets under management, that is approximately US\$70.0 to 100.0 billion in custodian fees paid to third parties every year; a sizeable market that is very likely be made redundant when blockchain technology achieve mainstream adoption.

1.3 FASTER, CHEAPER AND MORE RELIABLE TRADING

The finance market is notoriously volatile where profits or losses are determined in seconds and traders who gain early access to crucial information will have an edge over the less informed. Over the years, issues regarding transparency have come into question as cases of information asymmetry emerge. A report from the Wall Street Journal had found that professional money managers who are using the paid version of Electronic Data Gathering, Analysis and Retrieval system (EDGAR) have been able to get access to market-moving documents before free users. These delays in information distribution ranged from no delay to lasting more than a minute, giving traders some extra time to act on the news before others.

An obvious advantage of blockchain technology, especially in the field of finance, is the transparency it guarantees. For one, discounting other variables such as internet speed, any information on the blockchain will be available for interested parties to view at the same time; with a timestamp on the block as proof of when it was made available. This innovation will undoubtedly change the way the financial system disseminates information.

The use of blockchain on the stock market extends beyond just improved information symmetry, it can also significantly decrease the counter-party risk in trading. Currently, stock markets use what is known as the Delivery versus Payment (DVP) system, The DVP is a securities industry settlement method that guarantees the transfer of securities only happens after payment has been made. The bonds and securities market we are familiar with today employs the DVP method using custodians. The system requires these third

分子白皮书 2.0 M O L E C U L A R 03/32



parties primarily because these systems are not linked automatically. The transfer of the asset takes place in a different system from the payment system, as such, there exists counter-party risk due to defaults or frauds. Blockchain however, solves this problem amicably. The idea being that using smart contracts, sellers can deposit an asset onto the system and the buyer will deposit the payment amount; once it has been shown that the terms and conditions are met, the smart contract will automatically execute the trade without the risk of any party defaulting. Using this system, exchanges will be able to cut down what usually takes three days for trades to settle, to mere minutes or even seconds. This is especially important in complex derivatives markets where market conditions can change drastically before a trade is settled. This could result in potential costs savings of between 50% to 80% for processing and bookkeeping.

However, the issue is that this only works when both the assets and the payment currency operate on the same network (e.g Ethereum). The reality is that most chains do not have cross-chain capabilities. This is where Molecular Future has an advantage over other public chains. Molecular Future's MOS system fully supports cross-chain capabilities and is deliberately built in a way that allows new blockchains to integrate into the system in the future. This means that new forms of chains can be included to be compatible with the MOS, bringing greater liquidity for users of the Molecular Future's platform. Users can also also choose from the many tribes on the network depending on the quality of their service, such as user experience, settlement speed and transaction costs. Tribes on the other hand, will compete to provide the best service. This will ultimately result in lower transaction, settlement and transfer fees for users.

1 4 MARKET VALUE COMPARISON

Since the advent of bitcoin in 2009, the cryptocurrency market has seen rapid growth over the years. Although compared with the traditional stock and securities market that has decades of development history, the cryptocurrency market is still in the early stages of development. According to Forbes, as of September 2019, the market value of the NYSE alone has reached 28.5 trillion USD, while the entire cryptocurrency market is only valued at about 200 billion US dollars.



分子白皮书 2.0 04 / 31

Both the cryptocurrency market and the stock securities trading market have primary and secondary markets that share similar functions. In the secondary market, the cryptocurrency market has various types of centralized and decentralized digital currency exchanges. The traditional financial market on the other hand, has a large number of order-driven stock exchanges. The cryptocurrency market has vanilla over the counter (OTC), and the traditional financial market has brokered OTC. In recent years, the cryptocurrency market has also been able to develop contract trading and pledged mining similar to derivatives and fixed income that traditional markets offer.

Although there are many similarities, the traditional financial market has developed substantially for over 100 years since its inception. The cryptocurrency market however, had only been

 Primary & Secondary markets Securities Brokered OTC Derivatives Contract Trading 	Traditional	Cryptocurrency
• Fixed Income • Pledged mining	Primary & Secondary markets Securities Brokered OTC Derivatives Fixed Income	 Primary & Secondary markets Cryptocurrencies Vanilla OTC Contract Trading Pledged mining

established a little more than 10 years ago. There of course is a lot of potential for the industry but given the limited amount of exposure it gets and the lack of capital injection to develop its infrastructure, the markets remain immature. The biggest issue that arose from the market's immaturity is the lack of liquidity. Good liquidity is essential for the development of cryptocurrencies.

For cryptocurrency traders, markets that are liquid are preferred because it means they can convert between assets and cash quickly, enabling them to adjust to any market changes effectively. Furthermore, high liquidity attracts even more liquidity. However, factors such as a small market size, insufficient trading depth, few types of trading pairs, and restricted fiat conversion avenues has made trading unattractive for many, making it even more difficult to increase liquidity for the market.

Take the types of assets and trading pairs available for example. In the traditional financial market, the NYSE alone has more than 2,800

companies' securities listed for trade. In contrast, the top exchanges in the cryptocurrency market such as Binance, Huobi, and OKEx have between 160-230 cryptocurrency projects and about 570 trading pairs available to trade. Both the types of assets and trading pairs available for trade cannot be compared to that of the traditional market.

To take advantage of this opportunity, Molecule Future will launch a cryptocurrency liquidity management system that provides users with comprehensive liquidity management services including spot transactions, contract transactions, data analysis, cryptocurrency financing, brokerage and crypto asset management.



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MOLECULAR FUTURE GLOBAL ONE-STOP DIGITAL ASSET SERVICE PLATFORM

PART02

Molecule Future is committed to creating a global one-stop digital asset investment service platform that applies blockchain technology to develop quality financial products and services. After Molecular Future's digital trading platform EXN is officially launched, the network's integrated blockchain industry ecosystem will also be established subsequently. This ecosystem incorporates various fully functional sections of the current platform such as MOF Asset Management, MOF Lending and MOF Molecular Fission.





2.1 MOF ASSET MANAGEMENT

MOF Asset Management is a fully user-ready function available on MOF's application. It currently offers more than 30 fixed deposits, current deposits, hedge funds and quantitative funds. Users can use the three major currencies BTC, ETH and USDT to invest in these funds.

One of the advantages of MOF Asset Management is the ability to tailor investment plans based on the needs of users. MOF Asset Management categorises products in a modular and meticulous manner. Whether an investor is conservative or aggressive, he or she can flexibly choose from a variety of strategies and invest using different cryptocurrencies. In a general sense, MOF Asset Management can be seen as a "cryptocurrency asset management supermarket".

In order to serve users to the greatest extent, Molecule Future has launched nine hedge funds and quantitative funds, all which have achieved positive returns. Since June 2018, six of the hedge funds have completed settlement by the first half of 2019. The lock-up period of these six hedge funds is 3 months, and the average annualized return is close to 50%.

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s. <	产品列表	
. e	e 已众演 99%	+28.0% ERFC#
	XBTING基金会	O已投 100 BTC
	以太坊创新对冲基金5号 > 已众第 100%	+28.0% BB\$=0%
Molecular Stable invest	Future	• 已投 999.9139 ETH
Lock-up period	No lock-up period	+30.0% 回款年化率
12.0% Annual yield	USDT 1M Invested amount 96893.8169 USDT	○ 已投 100 BTC
14.0% Annual yield	OUSDT 3M Nevested amount 10884.7708 USDT	+60.0% ER#%#
16.0% Annual yield	OUSDT 6M Newsted amount 1248 USDT	E扱 99904.8422 USDT +286 3√
18.0% Annusl yield	G USDT 12M Invested amount 5005 USDT	 200.5% 回款年化率 ○已投 100 BTC
6.0%	ETH 1M Invested amount 39369.0321 ETH	
5.9%	ETH 14D Invested amount 61384.6614 ETH	
5.9% Annual yield	BTC 14D Invested amount 737.0788 BTC	
8.0% Annual yield	• ETH 12M	
Invest Borrow	MOF Asset Me	



Fund Name	Date of Inception	Lock-up period	Annualised Return
Ethereum Innovation Hedge Fund No. 1	2018.7.2	3个月	80%
Bitcoin Innovation Hedge Fund No. 1	2018.7.26	3个月	50%
Ethereum Innovation Hedge Fund No. 2	2018.11.5	3个月	48%
Ethereum Innovation Hedge Fund No. 3	2018.12.18	3个月	48%
Bitcoin Innovation Hedge Fund No. 2	2019.1.7	3个月	28%
Ethereum Innovation Hedge Fund No. 4	2019.2.26	3个月	30%

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分子白皮书 2.0 M O L E C U L A R 07 /32

CURRENCY INCREASE

In order to ensure the safety of users' assets, the Molecular Future team has designed a set of risk monitoring mechanisms. Strict risk control and audit indicators are implemented for all funds before they go online. The investment team can only trade, buy and sell, but do not have the right to withdraw. The users' investments are kept via joint multi-signature accounts of Molecular Future and its partner exchanges (such as OkEX and Hoo) in order to fully protect the interest of investment users.



In addition, all the hedge funds listed on MOF Asset Management have a high level of flexibility. Compared with the longer lock-up periods of most cryptocurrency funds, the lock-up period of MOF's hedge funds is only 90 days. Investment strategies are deliberately formulated to achieve maximum returns in 3 months yet ensuring reasonable liquidity for investors. Users of the Molecular Future platform are also entitled to discounts if they use MOF tokens. The redemption fee for funds currently stands at 30% of profits if the funds' native currency is used, but if users opt to use MOF tokens, the redemption fee will only be 15% of profit, and must be paid in an equivalent amount in MOF. In the future, MOF tokens can also be used for commissions, management fees and listing fees.

Fund Type	Crowdfunded?	Investment Period	Settlement Method	Admin Fee	Redemption Fee	Payment Method
Current Deposit	No	No Limit	T+1, annualised 2%	/	1	Redemption until principle and interest paid
Fixed Deposit	regular	1-12 months	T+1 30 days 6% 90days,6.5% 180days,7% 365days,8%	1	0.08% of investment capital, or 0.03% using MOF	Monthly redemption
Beginners'7 days introduction	No	7days	T+1 annualised 5.8%	1	Unconfirmed	Principle and interest due
Hedge Fund	Crowdfunded	90 days	Annualised return fluctuates	1	30% of profits, if using ETH or 15% if using MOF	Princple and interest due

分子白皮书 2.0 MOLECULAR 08 / 32

2.2 CRYPTOCURRENCY FINANCING MOF LENDING

MOF Lending is another major function available in the Molecular Future application. The main aim of MOF Lending is to provide a loan service that allows users to obtain loans with minimal requirements and favourable terms and conditions. At present, MOF Lending supports lending of mainstream cryptocurrencies such as BTC, ETH and MOF.

The booming blockchain industry has enabled a deeper exploration of the financial attributes of cryptocurrencies. Long-term financial services such as lending, fixed deposits, and custody have gradually replaced short-term speculation of the market. MOF Lending intends to build a lending system that enables cryptocurrency holders who do not wish to sell their cryptocurrencies an avenue to borrow by mortgaging their digital assets.



The cryptocurrency market is renowned for its volatility, and while that Securi brings great opportunities, investments are also riskier. MOF Lending hopes to help users control risk, as such, MOF currently only offers its services to individual cryptocurrency holders and not financial institutions.

In order to improve the user experience, Molecular Future will also implement a Consumer to Consumer (C2C) segment where users can post their lending or borrowing requests. The system will help to match these requests, providing users with OTC-like functions. Users will also be able to directly use bank cards, Alipay or WeChat payment to conduct transactions.

In order to better ensure the security of user assets and ensure the smooth execution of loans, Molecular Future will introduce a liquidation mechanism in the lending segment in the future. For example, after depositing BTC as collaterals, the user will receive a loan equivalent to 70% of total amount of collaterals. Interests will be settled on a daily basis. Through the use of a margin formula which will be described in detail later, a liquidation ratio is set. If the price of Bitcoin falls below a certain level, the system will automatically liquidate the loan. Users can choose to maintain the loan by depositing more collaterals until a safe level is reached. If the user chooses to close its position or if there is an automatic liquidation, the loan will be settled directly according to the current bitcoin price.

MORTGAGES AND LOANS INTRODUCE

分子白皮书 2.0 M O L E C U L A R 09/32



The lending process is as follows:

- Step 1: The holder (borrower) initiates a loan application on the lending platform;
 Step 2: The borrower transfers the digital currency to the wallet address specified by the platform;
 Step 3: Loan amount is made available to borrower;
 Step 4: If the value of the collaterals falls below a certain level (risky), the platform will require the borrower to increase the amount of collaterals. If no action is taken and the value of the collaterals falls to the liqudation level, the platform will automatically liquidate the loan;
 Step 5: If no liquidation occurs, the borrower must return the principal and any incurred interests at the end of the loan term;t
 - 5 Step 6: After the platform receives the principal and interests, it will unlock the collaterals to the borrower. A fee of 0.3% will also be incurred as a handling fee. At this point, the mortgage loan process ends.

The margin calculation formula is as follows:

c_a^p = pr*ci-c_1^p

c_a^p value of collateral that needs to be added to remain at a safe level pr is the mortgage ratio (not less than 150%)

ci Value of the loan (70% of the value of the collateralised cryptocurrencies)

c_1^p Current value of collateralised cryptocurrencies

Note: This formula is the basic formula for margin calculation. The actual calculation will consider more variables, so it may be more complicated, but the core content is unchanged.

Case Show:

User A deposits 10 BTC on the lending platform as collaterals and chooses to borrow for 3 months. At this time, the current price of BTC is \$ 10,000. User A can obtain a loan of 10 * 10,000 * 70% = 70,000 USD from the platform.

If the price of BTC rises to US\$15,000 after 3 months, then the total value of BTC of User A in the currency bet will be US\$150,000. User A can choose to return the borrowed US\$70,000 to the platform, and pay the corresponding collection fee, to withdraw the 10 BTC that is now valued at US\$150,000.

If within 3 months, the price of BTC drops to USD 9,000, which is below the liquidation level, User A will need increase the collaterals to ensure that the loan is not liquidated. Currently, the actual mortgage rate of user A's mortgage becomes $(9,000 * 10) / (10 * 10,000 * 70\%) \approx 129\%$, which is lower than the healthy mortgage rate of 150%, so the amount of margin that the user needs to pay is 150% * 10 * 10,000 * 70% -9,000 * 10 = 15,000 USD.

分子白皮书 2.0 моцесицая | 10 / 31

In order to increase the liquidity of the platform and to provide users with more options, the platform will support more currency types in the future. If the user chooses to use a non-mainstream cryptocurrency to obtain a mortgage loan on the lending platform,



must use MOF tokens as collaterals. The MOF collateral ratio is determined based on the market liquidity of the cryptocurrency. The lower the liquidity of the currency in the market, the more MOFs need to be provided by the borrower.

For individual holders, when there is a strong upward or downward trend in the price of digital currencies, users can hedge their risk through loans. For users who have idle funds in their hands, they can offer quick loans and easily obtain a daily interest rate of 0.1%.

MOF Lending is a more convenient and safe way to effectively solve the problem of short-term capital needs for users. It also provides a variety of financing possibilities for the currencies held by users. The mortgage escrow method of the cryptocurrencies is transparent, users can see every transaction of their assets; the entire borrowing and mortgage process is fully automated and supervised by the system.

Вс	orrow	Lend	ł	¥ 60047.9	99 +0.68%
BT	С	ETH	MOF	OKB	CNY -
	Adam			E	Borrow
500	00.00 .	nit price 0.3	Min. Qty	7500	0.00 _{Total}
610	James	0.8	3	24400	Borrow
611	James	0.8	Min. Qty	24444	Borrow
620	星令 000.00 u	nit price 0.5	Min. Qty	15500	Borrow
620	辣鸡 000.00 _u	nit price 0.5	Min. Qty	15500	Borrow
630	Adam 2000.00 u 2 (est Br	nit price	MOF	31500 Asset	D.OU Total

MOLECULAR CURRENCY MORTGAGE

分子白皮书 2.0 M O L E C U L A R 11 / 32



In order to reduce minimise risks, when users' assets are collateralised, these assets are placed in independent cold wallets and an independent address. The separation of hot and cold wallets provides a more secure asset protection mechanism.

In the future, MOF Lending will also include a lending service that caters to businesses as a part of its plan to offer one-stop solutions to everything finance in the cryptocurrency industry. The first step to start offer business solutions is to provide an efficient and convenient financing platform for high-quality projects in the blockchain industry.

At present, the blockchain market is seeing a good growth momentum with many high-quality projects emerging during the development of the blockchain industry. Many of these projects have financing needs in order to expand their business and develop their market. The lending platform will use the project's own native tokens as collateral and MOF as the security deposit to control risk. Lenders to the project can obtain interest at the agreed interest rate during the investment period.





In order to minimise the risk, Molecular Future will monitor the fluctuation of the price of the project's tokens in real time. In the case that liquidation is triggered, the safety of the lender will be guaranteed in a timely manner. If the market depth is insufficient, the MOF deposited by the project team will be used to advance the lender as a means of protecting the investor's rights and interests. MOF Lending aims to help outstanding projects in the same industry develop together and jointly promote the development of the blockchain industry.

2.3 DIGITAL ASSET GROWTH MOLECULAR FISSION

Molecular Fission is another financial function available on the Molecular Future app. Users only need to lock MOF tokens into the platform to participate in Molecular Fission. Every day, these users will get a random income through a random interest rate formula, with an annualized interest rate ranging from 6% -10%.

Case 1

Assume that on December 1, 2019, User A's MOF holding amount in Molecular Fission is 1000 MOF, and the built-in random interest rate formula of Molecular Fission calculates the annual molecular fission return rate of 9% on that day, then user A will receive about 0.2466MOF.

分子白皮书 2.0 12 / 32

The Molecular Fission interest rate is calculated as compound interest. To put it simply, the more MOF tokens locked in Molecular Fission and the longer the tokens are locked up, the more interests the user will receive. Since MOF tokens are finite and there will not be additional issues, the Molecular Future team will repurchase and burn MOF tokens every quarter, the MOF will gain more value over time while keeping the total amount unchanged.

Molecular Fission will also provide users with many other functions. For example, Molecular Fission issues 10x return cards and MOF income vouchers to users. When a user uses a 10x return card, the Molecular Fission return of that user will multiply by 10 times. MOF income vouchers are "introductory" vouchers issued to users who have not yet held MOF. After using the coupon, the Molecular Fission income generated by the coupon will be automatically deposited into the users' account; withdrawals are allowed.

Case 2

User B received a 1000 MOF coupon, and the Molecular Fission annualised return rate calculated by the interest rate formula built in Molecular Fission was 9% that day. Then the 0.2466MOF obtained from the Molecular Fission income on that day will be deposited into user B's account and becomes part of the account balance.

2.4 LIQUIDITY MANAGEMENT

2.4.1 Prospects of Molecular Liquidity Management Business in the Future

Lack of liquidity is a long-standing issue in the cryptocurrency trading market. Take the demand for liquidity management business of cryptocurrency trading platform as an example. From the data of Coinmarketcap, it can be seen that in terms of 24-hour trading volume, even the well-known platforms such as Binance, Huobi, OKEx or ZB do not come close to the top 3 exchanges. Let alone smaller exchanges (the bottom three in the figure below) and those that have not entered the top 100 ranking in Coinmarketcap (data as of December 8, 2019).

Undoubtedly, with the continuous development of the cryptocurrency market, the number of trading platforms and the number of cryptocurrencies will also continue to expand. According to data from feixiaohao.com, at present, the number of trading platforms that have been included on feixiaohao.com has reached 488, and as many as 5091 different cryptocurrencies. However, aside from well-known trading platforms such as Binance and Huobi, most exchanges see little to no volume. In recent years, even platforms as big as Binance, Huobi and OKEx have not seen good liquidity.

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It is clear that liquidity management has become a key factor for all exchanges. However, as the entire cryptocurrency market has yet to scale, the industry will require more players to enter.

In the traditional financial market, Goldman Sachs Group, as one of the largest brokers, has a total market value of USD 933 billion in 2018 and a total revenue of USD 36.616 billion in 2018 (Goldman Sachs Group Annual Report 2018 data) . Considering that the market value of the NYSE in September 2019 was as high as 28.5 trillion U.S. dollars, while the market value of the entire cryptocurrency was only about 200 billion U.S. dollars, a horizontal analogy can be drawn. In the same way, a multi-billion-dollar brokerage business in the cryptocurrency industry will also be needed to fill the "gap" in the market. Molecular Future intends to seize this opportunity to enter the liquidity management sector and gain a first-mover advantage.

ADMINISTRATION BUSINESS PROSPECTS

Cŋ	ptocurrencies -	Exchanges - W	/atchlist		
#	Name	Adj. Vol (24h)*	Volume (24h)	Volume (7d)	Volume (30d)
1	D P2PB2B	\$1,036,658,122	\$1,036,658,122	\$5,662,132,026	\$30,532,858,537
2	3 BitMart	\$1,035,149,913	\$1,035,149,913	\$3,614,647,642	\$16,216,582,927
3	Fatbtc	\$948,747,151	<u>\$948,747,151</u>	\$5,884,775,172	\$27,436,607,911
17	Sinance	\$608,041,754	\$608,041,754	\$5,314,840,140	\$28,299,212,421
20	🔹 OKEx	\$546,524,398	\$546,524,398	\$4,374,688,259	\$22,275,307,951
27	B.COM	\$429,888,353	\$429,888,353	\$2,617,476,548	\$15,053,852,706
28	🍐 Huobi Global	\$429,592,913	\$429,592,913	\$3,988,544,203	\$23,135,578,722
98	♦ втсвох	\$9,101,203	\$9,101,203	\$44,813,898	\$247,692,883
99	SBBX	\$8,536,636	\$8,536,636	\$56,526,201	\$383,943,038
100	Bitbank	\$7,560,431	\$7,560,431	\$82,139,790	\$459,202,845

分子白皮书 2.0 14 / 32

1.4.2 Liquidity Management Business

In order to protect the rights and interests of users, Molecular Future's professional quantitative team will monitor and manage the liquidity on all the exchanges where MOF is listed. MOF as a platform token has many use cases and is currently listed on renowned exchanges such as OkEx and Fcoin.

The traditional financial industry generally chooses Black-Scholes pricing model, binary tree pricing model and Monte Carlo simulation for option pricing. The pricing model adopted by the Molecular Future's quantitative team takes into account the two main models of Black-Scholes pricing model and binary tree pricing model.

Binary tree pricing model

Binary tree option pricing model and Black-Scholes option pricing model are complementary methods. The binary tree option pricing model is based on a basic assumption, that is, within a given time interval, the price movement of the security has two possible directions: up or down. Although this assumption is very simple, since a given time period can be subdivided into smaller time units, the model is suitable for processing more complex options

However, the above pricing model is mainly applicable to the traditional stock and securities markets. Therefore, Molecular Future will also fully consider pricing models that can be applied to the cryptocurrency market in the future. HackerNoon, a well-known blockchain rating and data consulting agency, pointed out [4] that the three-stage price derivation, modified three-stage price derivation, and Silicon Methodology are important in obtaining the fair value of cryptocurrencies.

Black-Scholes Pricing Model

The Black-Scholes model is based on the principle of no arbitrage, which is simply that there is no risk-free arbitrage opportunity in the market: if any two assets have equal cash flows at any time in the future, their current prices must be equal

C=S*N(d1)-e-r*T*L*N(d2)d1=(ln S/L+(r+0.5* σ^2)*T)/($\sigma^*\sqrt{T}$) d2=d1-σ*√T C:Initial reasonable price L: Delivery price; S: the current price of the financial assets being traded; T: validity period; r: continuous compound interest rate risk-free interest rate; σ^2 :annualized variance; N (): Cumulative probability distribution function for normally distributed variables.

Three-stage derivation

Three-stage derivation is the most basic method for cryptocurrencies to obtain fair value. This derivation method first calculates the weighted average price of bitcoin (weighted by transaction volume) through the price of all bitcoin / fiat transaction pairs. Secondly, it lists the cryptocurrency pairs involving Bitcoin or fiat. Using the weighted average price of bitcoin calculated in the first step, we can further derive the weighted average price of other listed cryptocurrencies (weighted by the transaction volume). Finally, we can calculate the price of other cryptocurrencies that do not have a USD value. For cryptocurrencies, the cryptocurrency USD price calculated in the previous step is used as the reference price to calculate the USD prices of these crypto assets.

分子白皮书 2.0 M O L E C U L A R 15/32

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3

Three-stage derivation CASE

Assume the following trading pairs, BTC/US-DT, ETH/BTC, ETH/USDT, LTC/BTC, LTC/US-DT, LTC/ETH, EOS/ETH, EOS/LTC, MOF/EOS

Step 1: First use BTC / USD to get the BTC price;

Step 2: Then get ETH and LTC prices through ETH / BTC, ETH / USDT and LTC / BTC, LTC / USDT;

Step 3: You can get the price of EOS through EOS / ETH, EOS / LTC;

Step 4: Calculate the fair price of MOF through MOF / EOS trading pair.

All trading pairs: BTC/USDT,ETH/BTC,ETH/USDT,LTC/BTC, LTC/USDT,LTC/ETH,EOS/ETH,EOS/LTC, MOF/EOS

	Used Trading pairs	Unused trading pairs
Step 1: Get BTC price	BTC/USDT	ETH/BTC,LTC/BTC
Step 2: Get ETH and LTC price	ETH/BTC , ETH/USDT LTC/BTC . LTC/USDT	LTC/ETH , EOS/ETH LTC/ETH , EOS/LTC
Step 3: Get EOS price	EOS/ETH, EOS/LTC	MOF/EOS
Step 4: Get MOF price	MOF/EOS	

Each step of the method is highly dependent on the calculation of the transaction price in the previous step, and all calculations are based on the calculation of the Bitcoin USD price.

THREE STAGE FORMULA

Adjusted three-stage derivation

Adjusted three-stage derivation is another pricing mechanism that is more comprehensive and more accurate than its predecessor. Since the adjusted three-stage derivation is consistent with the first two steps of the three-stage derivation, the first step and the second step are omitted. In the third step, the BTC price is fixed, and using other available trading pairs, the cryptocurrency price in the previous step is recalculated, and the revised reference price is obtained. We then calculate the prices of the remaining cryptocurrencies; and repeat the above steps until all listed cryptocurrencies have obtained the corresponding USD prices and all trading pairs are included in the calculation.

分子白皮书 2.0 M O L E C U L A R | 16 / 32



Adjusted three-stage derivation CASE

Assume the following trading pairs: BTC/US-DT, ETH/BTC, ETH/USDT, LTC/BTC, LTC/USDT, LTC/ETH, MOF/ETH, MOF/LTC

Step 1: First use BTC / USD to get the BTC price;

Step 2: Then get ETH and LTC prices through ETH / BTC, ETH / USD and LTC / BTC, LTC / USDT;

Step 3: Include the ETH USD price obtained in the previous step into the equation and obtain the LTC USD price and the LTC / ETH USD trading volume. Recalculate the average LTC USD price using three sets of trading pairs, and then apply the LTC found in step 2 The USD price (or the latest calculated LTC price) is incorporated into the LTC / ETH equation, and the ETH USD price and new transaction volume of the LTC pair are obtained;

Step 4: Calculate the price of EOS;

Step 5: Recalculate ETH and LTC prices;

Step 6: Calculate the MOF price.

All trading pairs: BTC/USDT,ETH/BTC,ETH/USDT,LTC/BTC,LTC/USDT, LTC/ETH, EOS/ETH, EOS/LTC, MOF/EOS

	Used trading pairs	Unused trading pairs
Step 1: Get BTC price	BTC/USDT	ETH/BTC,LTC/BTC
Step 2: Get ETH and LTC price	ETH/BTC,ETH/USDT LTC/BTC.LTC/USDT	LTC/ETH , EOS/ETH LTC/ETH , EOS/LTC
Step 3: Revise ETH and LTC price	LTC/BTC.LTC/USDT,LTC/ETH ETH/BTC,ETH/USDT,LTC/ETH	EOS/LTC, EOS/ETH
Step 4: Get EOS price	EOS/ETH, EOS/LTC	MOF/EOS
Step 5: Revise ETH and LTC price	LTC/BTC . LTC/USDT , LTC/ETH ETH/BTC , ETH/USDT , LTC/ETH EOS/ETH , EOS/LTC	
Step 6: Get MOF price	MOF/EOS	

In the revised three-stage derivation process, more niche transaction pairs were covered, and the prices of each cryptocurrency were repeatedly calculated in the process, which should help reduce bias and increase reliability.

分子白皮书 2.0 17/32 MOLECULAR

The Silicoin Methodology

Silicoin Methodology mainly calculates the price of each token traded on that platform for each trading platform. After selecting a trading platform, the calculation should start with the best trading pair in the platform, that is, those trading pairs that require the least transaction procedures and the largest trading volume.

For a cryptocurrency trading platform that has not opened fiat currency trading, you can anchor all the remaining cryptocurrencies to a mainstream cryptocurrency (such as BTC), and then calculate the total transaction volume of all cryptocurrencies in the trading platform, and then calculate the weighted average price of all cryptocurrencies in the market (weighted by transaction volume).



CASE SHOW

Assume that there are the following trading pairs in a cryptocurrency trading platform called Exchange A: XYZ/BTC=ρ1, XYZ/ETH= ρ 2, and use PBF and PEF to calculate the XYZ price: XYZ/BTC=PBF* p1, XYZ/ETH=PEF* p 2. Based on the USD fiat transaction prices of BTC and ETH in other trading platforms, calculate the USD fiat prices of BTC (PBF) and ETH (PEF) Step 1: Obtain Exchange A's latest price of every currency and their 24-hour trading volume Step 2: Calculate the USD price and trading volume of every currency on Exchange A Step 3: Use the below formulas to calculate the weighted average price of XYZ (weighted by transaction volume): VWAP=Sum(WAa*Pa) WAa=Wa*adja Wa=Va/Sum(Va) Pa: Price of a cryptocurrency in Exchange A Va: Total trading volume of the selected cryptocurrency on Exchange A WAa: Adjusted weighted trading volume of Exchange A adja: Weight adjusted trading volume of Exchange A Wa: None weighted trading volume of Exchange A Sum(Va): Total trading volume of selected currency across all exchanges

分子白皮书 2.0 M O L E C U L A R 18 / 32

Compared to the three-stage derivation and the revised three-stage derivation, the Silicoin Methodology focuses more on the performance of each cryptocurrency on various platforms, and to a certain extent, can better reflect the weighted average price of a specific currency. However, if the same trading pair of different trading platforms is introduced as the reference price, calculations can lead to large deviations in prices due to market friction.

The Molecular Future Quantitative trading team has considered the above three methods and found that the use of a proprietary artificial intelligence programme to derive prices yielded the most accurate results. The AI calculation is more systematic and can automatically retrieve data from the web to be inputted as factors that affect the price. In MOF Liquidity Management business, the Molecular Future team comprehensively considers factors such as the bid-ask spread, the total order size, the order duration, and the weight adjusted prices of specific trading pairs in order to ensure that MOF remains fairly valued.

	•Use AI to capture the latest data across the network
Integration of Resources	 Including the latest price, trading volume, number of traders, number of trading pairs, etc.
	•Comprehensive consideration of traditional option pricing models, such as Black-Scholes pricing model, binary tree pricing model, Monte Carlo simulation
Price Positioning	•Combining the characteristics of the crypto market, using the three-stage pricing method and Silicoin Methodology to comprehensively determine the fair price
	•Use MT5 to make a reasonable bid and ask price based on the fair price
Two-way quote	Improve pricing transaction continuity
	•Comprehensive consideration of factors such as the bid-ask spread, the total order size, the order
Transaction	duration, and the adjustment of trading pair weights
aggregation	 Use MT5 to aggregate trade orders of main currencies
	 Integrate various data and use AI to perform quantitative trading
Quantitative Trading	•Ensure users get the most benefit

The liquidity management business is one of the main businesses that will be launched in the future. Its purpose is to improve the liquidity of the currency, help users obtain sufficient transaction depth, optimal bid / ask prices, and ultimately ensure the smooth completion of transactions. To ensure that liquidity management yields the best result, Molecular Future will integrate MetaTrade5 (MT5) in the future to provide users with cryptocurrency and fiat currency CFDs, foreign exchange transactions and other services.

After integrating with MT5, users can use MT5 to directly operate on the Molecular Future platform, including the use of EA (Expert Advisor) intelligent automatic trading strategies to analyse cryptocurrency prices and execute automatic trading. The Molecular Future quantitative team will also provide users with EA trading algorithms(see 4.5.1 for details).

After the launch of the liquidity management business and MT5 tools, the liquidity management business will have integrated all of its resources including price positioning, two-way quotation, transaction aggregation and quantitative trading.

Molecule Future has a mature quantitative team and has extensive experience in digital asset management. It can implement pricing analysis, quotation analysis, trading strategy adjustment, and hedge fund trading.



分子白皮书 2.0 19 / 32

formulation, multi-currency trading and so on. The entire operation of EXN is on the blockchain, thus ensuring complete decentralisation, better security, low infrastructure risk, high privacy, and high transparency.

2.5.1 Molecular trading MT5 system

The decentralized digital trading platform EXN will integrate the MT5 trading system that is commonly used in the traditional financial market, and develop it into the cryptocurrency compatitible MT5 (Molecular trading), providing users with cryptocurrency and fiat currency CFDs as well as foreign exchange transactions.

MT5, or MetaTrade5, is a trading software for financial products such as foreign exchange and futures. It is familiar to many traditional financial market traders and used widely by traditional market funds. As a diversified financial product trading platform, MT5 can provide all the necessary tools for financial transactions, including technical and fundamental analysis, algorithms and copy trading, as well as the development of custom technical indicators and EA (Expert Advisor) intelligent automatic trading

MT5 also supports algorithmic trading. Through preset algorithms, it uses automated trading methods to help users engage in exchange market transactions. After downloading the MT5 platform, users can directly access the foreign exchange market and use the technical analysis provided by MT5 to trade.

Molecule Future has a mature quantitative team and has extensive experience in digital asset management. It can implement pricing analysis, quotation analysis, trading strategy adjustment, and hedge fund trading.

2.5 DECENTRALIZED EXN DIGITAL ASSET TRADING PLATFORM

In terms of asset transactions, Molecular Future will launch a professional decentralized digital trading platform EXN that offers users multi-currency trading. They can use MOF as the platform token. EXN is built on the Meta-Trader5 (MT5) trading platform and provides users with a variety of trading functions, including asset management, system ordering, trading strategy

分子白皮书 2.0 M O L E C U L A R 20 / 32



Using MT5, users can access real-time cryptocurrency data including Bitcoin (BTC), Bitcoin Cash (BCH), Dash (DASH), Ethereum (ETH), etc. Make cryptocurrency transactions. In 2019, MetaQuotes, the software developer of MT5, announced that it will connect MT5 to the digital cryptocurrency data source provided by Brokeree Solutions and provide users with the following support:

- MT5 liquidity gateway, bringing together liquidity providers;
- PAMM plugin for arranging investment management;
- Expansion of agency fee function for creating a multi-level agency fee distribution system.

In addition, MT5 also has a proprietary paper back tester, which can run strategies based on the historical price of cryptocurrencies and automatically conduct transactions based on algorithms to ensure that problems in trading strategies are discovered before use in real accounts.



The array of services and functionalities available on the MT5 had led Molecular Future to decide to integrate MT5 on EXN. Users can download MT5 directly through the EXN official website and log in to MT5's Molecular Future dedicated server to directly operate on EXN. This allows users to use EXN conveniently for cryptocurrency trading. Users will receive full access to all functions and algorithms available to traditional users.

After EXN goes online, it will allow users to create, test, debug and optimise their own proprietary trading algorithms directly on the platform. Through EXN's built-in algorithm creation wizard, users can create custom EA trading strategies. For users who are unable to code, Molecule will also provide other options for them in the future; this includes:

- Future quantitative trading team

分子白皮书 2.0 21/32 MOLECULAR

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purchasing an existing Expert Advisor directly on the platform;

Customise the EA trading algorithm tailored for users by the Molecular

Users only need to register for an account on EXN, or use the existing EXN account on MT5 and select the Molecular Future dedicated server to access a range of trading services. Users can also trade through the EXN application. EXN will launch a desktop version and a mobile version for users to download and is available on both iOS and Android systems. When users use Molecular Future MT5 for the first time, they can also choose Demo (paper trading) or Live trading according to their own preference.

With MT5, EXN will provide users with the following services on the platform:

- Combining cryptocurrency with intelligent quantitative trading;
- Original cryptocurrency asset management and copying system;
- Provide powerful charting technical analysis tools;
- In-depth transaction statistics;
- Cryptocurrency trading strategy tester;
- Support for multiple currencies (including cryptocurrencies and fiat currencies)

EXN's MT5 can provide users with an extensive library of tools to ensure that the needs and strategies of all traders are addressed. Molecular Future's quantitative team will ensure that EXN users can conduct professional cryptocurrency transactions in MT5. Using blockchain, transactions are open and 100% transparent. Each trading participant can see any



limit orders in the open market and use intelligent trading algorithms to make correct decisions based on the current market conditions.

2.5.2 EXN MT5平台前景

Molecular Future's decentralized digital asset trading platform EXN will integrate the main functions of the molecular APP and can connect with all current MOF currency users. Also, after integrating MT5, EXN is able to integrate multiple existing resources of MT5 and bring millions of users to EXN. As of 2016, most major financial product dealers, including ActivTrades, Just2Trade, NAS dealers, Halifax Investment Services and Forex Limited, have

all announced support for MT5.

In addition to traders who have connected to MT5, other outstanding financial market participants have also announced that they will access all MT5 functions in the near future, including GLOBAL FX. At present, a total of more than 150 mainstream traders around the world provide MT5 services to their customers

Taking the world-renowned financial company Just2Trade as an example, J2T customers can directly access the New York Stock Exchange (NYSE), NASDAQ, and London Stock Exchange (LSE), FSE, Moscow Exchange (MOEX), Chicago Mercantile Exchange (CME), New York Mercantile Exchange (NYMEX), Intercontinental Exchange (ICE), European Futures Exchange (EUREX) and other major global exchanges from their MT5 account. Therefore, it is clear that MT5 is popular with both individual and institutional users.

分子白皮书 2.0 22/32

According to the research report by the FM Intelligence Department (Finance Magnates Intelligence Department), throughout 2018, MT4 and MT5 accounted for more than 50% of the global CFD transaction volume (including cryptocurrencies). During 2018, the market share of MT4 and MT5 both steadily climbed, reaching the highest value of 55% of overall market share in the third and fourth quarters.



Judging from the amount of transactions that MT4 & MT5 handles, its dominance is truly unrivalled. Taking the well-known dealer IC Markets as an example, the average monthly trading volume (including cryptocurrency) of the MT4 & MT5 platform accounts for 94% of its total monthly trading volume. In 2018, the average monthly transaction volume of transactions on IC Markets via MT4 and MT5 increased rapidly throughout the year, from US \$ 308.7 billion in the first quarter to US \$ 497.2 billion in the last quarter, representing an increase of 61%.



In addition, after the release of the latest version of MT5 that supports the hedging function, traders can use the net amount mode for trading financial instruments and can also use the hedging mode for currency transactions. After the hedging function was released, more users turned to MT5. Its official forum MQL5 has become the world's largest trader algorithm forum, bringing together MQL5 application developers and traders from all over the world. Its daily active users are more than 10,000.

According to the announcement [9] released by MetaQuotes in October 2017, multiple MT5 dealers have started to provide digital cryptocurrency trading services to their investors, including Admiral Markets, BCS Forex, NordFX and IC Markets, etc. The currencies include Bitcoin (BTC), Bitcoin Cash (BCH), Dash (DASH), Ethereum (ETH), Lite Coin (LTC) and Ripple (XRP).

分子白皮书 2.0 23/32MOLECULAR

保护公司(SIPC)的成员,分支机构Just2Trade Futures是受美国期货协 ● 注解2:Just2Trade捷世交易是 会(NFA)监管的期货交易商。2015年Finam集团收购美国金融机构 Just2Trade,实现了跨越全球股票,外汇,贵金属,期权,FTFs以及CFDs领域的全面布局

[●] 注解3:IC Markets是总部位于澳大利亚的在线零售外汇和差价经纪人合约的交易平台,总部位于悉尼。IC Markets专门从事亚洲和欧洲的外汇,指数,商品,债券和股票市场的差价合约。

Digital cryptocurrency is a new type of transaction tool, and digital cryptocurrency and blockchain technology may lead the way in payments of the future. Although cryptocurrencies can hardly be applied to traditional economics and fundamental analysis, MT5 has already become a future-oriented trading platform with its rich experience in financial product data analysis and extensive trading functions.

After accessing MT5, EXN can provide users with a variety of trading function for both the desktop and mobile versions.

Main performance of ENX MT5 desktop version:

- Fast, stable and reliable;
- price alerts;
- trading signals and fast trading;
- Rich built-in data analysis tools
- Direct transactions through data forms;
- Supports multiple systems such as PC, Mac and Linux.
- Massive free trading algorithms and EA scripts are available for download;

Main performance of ENX MT5 desktop version:

- interactive quote form;
- Display of a full set of pending orders;

- tMobile version of data analysis tools;
- Quickly trade orders with one click;
- Quickly initiate conversations with other traders;
- informational reminders;
- Phone verification code login

It can be expected that the integration of EXN and MT5 will bring millions of users to EXN, as well as more transaction resources and transaction numbers. Molecular Future is confident that EXN and MT5 will become one of the

2.5.3 EXN platform token MOF

MOF is a ERC-20 cryptocurrency issued by Molecular Future. It also functions as the platform token for Molecular Future's digital trading platform EXN, with a total fixed issued volume of 100 million, with no possibility of additional issue. MOF uses a token economic model to enable Molecular Future's users and professional investors to gain exposure to high quality blockchain projects.

At present, the molecular future team will use 40% of the quarterly net profit for the repurchase of MOF in each quarter. The repurchased MOF will be directly destroyed, and the repurchase record will be announced as soon as possible. The repurchase will be deem completed when the MOF tokens in float is balanced at 50 million.

分子白皮书 2.0 24/32

As an EXN platform token, MOF token holders have a number of rights and interests in EXN. They are entitled to fee discounts, listing votes, MOF trading pairs, and so on. EXN will determine the users' level based on the number of MOF tokens held by the user. Users who hold a higher number of MOF tokens will be entitled to more discounts and benefits.

HANDLING FEE DISCOUNT

EXN uses a tiered fee deduction strategy, which provides different fee discounts for users of different levels according to the amount of MOF tokens they hold and their overall trading volume in the last 30 days. Users only need to hold a certain amount of MOF to get discounts on transaction fees on EXN.

User Type	Level	MOF tokens held	Trading volume last 30 days (BTC)	Base fee	Fee (with discounts)	Discount (Percentage)
	1	≥500			0.18%	10%
Normal	2	≥1000	<1000		0.16%	20%
	3	≥1500			0.14%	30%
	4	≥2000		0.20%	0.12%	40%
	5	≥2500			0.10%	50%
	6	≥3000			0.08%	60%
Professional	1	≥3000	≥1000		0.06%	70%
	2	≥3000	>1500		0.04%	80%
	3	≥3000	>2000		0.02%	90%

LISTING VOTE

In order to jointly build the EXN ecosystem, all MOF holders can vote for projects that they would like to see become listed on EXN. Each user can vote a minimum of 1 vote per project, or up to 1 million votes maximum. Each vote requires 0.1 MOF. After voting has concluded, the project with the highest number of votes will get the opportunity to list EXN. The MOF paid for the vote is non-refundable.

MOF TRADING SECTOR

Molecules will open a MOF trading section in EXN that supports all currency pairs listed on EXN and MOF.

2.6 ESTABLISH A BLOCKCHAIN INDUSTRY ECOSYSTEM

After Molecular Future's digital trading platform EXN is officially launched, the molecular future integrated blockchain industry ecosystem will also b established. This ecosystem will be incorporated into various functional sections of the future platform of Molecular Future such as Asset Management, Lending, Molecular Fission and EXN.

分子白皮书 2.0 Z5 / 32

MOF Asset Management will provide users with digital asset management services while MOF Lending will help users take on loans or help high quality projects meet their funding needs. Molecular Future will also establish a new type of blockchain decentralised community that shares community information together.

In addition to EXN, MOF also plays an important role in the entire Molecular Future ecosystem. MOF can be used as a fee discount in the Asset Management function or be used as a security deposit in the Lending function.

Use of MOF in various aspects

Molecular Future

Ecosystem



- Security Deposit
 - Molecular Fission Dividends
 - Community Experience

EXN Platform rights

Voting

Transaction fee discount

• MOF Dedicated Trading Zone

• Asset management discount

The average performance fee (redemption fee as mentioned earlier) of cryptocurrency funds is at about 30%, not including the 1.8% management fee annually. However, if currency investors use MOF to pay the performance fee, they will get a 50% discount.

Fund Type	Crowdfunded?	Investment Period	Settlement Method	Admin Fee	Redemption Fee	Payment Method
Current Deposit	No	No Limit	T+1, annualised 2%	/	1	Redemption until principle and interest paid
Fixed Deposit	regular	1-12 months	T+1 30 days 6% 90days,6.5% 180days,7% 365days,8%	1	0.08% of investment capital, or 0.03% using MOF	Monthly redemption
Beginners' 7 days introduction	No	7days	T+1 annualised 5.8%	/	Unconfirmed	Principle and interest due
Hedge Fund	Crowdfunded	90 days	Annualised return fluctuates	1	30% of profits, if using ETH or 15% if using MOF	Princple and interest due

• Security Deposit

In order to help high quality cryptocurrency projects obtain funding, MOF Lending will use the undistributed tokens of the projects as collaterals.

Molecular Fission Benefits

Users can deposit MOF into the Molecular Future app and receive a daily interest (annualized return rate ranging from 6% to 12%).

分子白皮书 2.0 MOLECULAR 26/32

• User mutual assistance Q & A

Molecule Future will build a Q & A community in the future. Users can ask questions and offer a "reward" for people who can answer.

Investment experience sharing

The molecular future community is committed to providing users with a decentralized communication environment. Therefore, Molecule Future will create a community sharing section for users in the future. Users can use the built-in icon function of EXN MT5 to analyse data and publish their findings to the platform for other users to view. Sharing content can include project analysis, price trends, token technology, and so on. Other users can comment on the content by giving "Likes" or providing feedback. Likes can increase the reputation of content creators, take them to a higher level, and even tokenize their reputation.

• KOL colum

High-profile users can eventually become KOLs in the section and create columns to share information with more users. KOL can set the column to be visible only with MOF to get content rewards. Ordinary users can spend MOF to view the latest publications by these KOLs. Molecule Future will also invite KOLs from the industry to join the community in the future to provide users with valuable insights.

Portfolio sharing

Molecule Future will create a portfolio tracking zone in the future where users can choose to disclose their own portfolios and other users can choose to follow. If the user who tracks the portfolio made positive returns, a portion of the returns will be distributed to the owner of the portfolio. At present, with the combination of MOF Asset Management, Lending, Molecular Fission, the community forum as well as the decentralised exchange EXN, Molecular Future has developed a healthy financial services ecosystem where users can come to employ services that meet their needs. Molecular Future intends to continue to develop the ecosystem, break geographical barriers, and build the world's first digital currency financial infrastructure that mirrors that of the traditional financial system.



分子白皮书 2.0 27 / 32

TECHNOLOGY IMPLEMENTATION PLAN

PART03

In order to realise the Molecular Future's vision, the Molecular Future technical team has designed a comprehensive public chain that boasts high security, transparency, network efficiency and cross-chain capabilities. The development of the Molecular Future public chain has been rigorously designed to combine financial services and products with blockchain technology. Molecular Future aims to give users a better alternative to the products and services currently offered by the traditional financial market.









3.1 DOMAINS

Molecular Future uses an innovative blockchain network architecture that comprises of many independent blockchains, called domains. Molecular Future is essentially a system of many independent blockchains running together; they are called domains. The domains are run based on the Octahedron Practical Byzantine Fault Tolerance (PBFT), an in-house modification of the PBFT algorithm which provides an efficient and secure consensus engine.

The main domain on Molecular Future is the Mega Operating System (MOS). MOS is a public chain which serves as Molecular Future's multi-chain management system, much like a master server, that runs on a simple governance mechanism that allows new domains, as long as they are compatible, to connect to MOS for integration and upgrades.

The domains communicate with each other via inter-chain transmission (ICT) protocol. Since all token transfers within each domain will be processed through the MOS, the MOS keeps track of the total amount of tokens held by each domain. This enables



tokens to be transferred from one domain to another quickly without having to worry about liquidity between domains. This mechanism also makes the system more secure as it isolates each domain from the failures of other domains. As anyone can connect a new domain to the MOS, the system allows for forward compatibility when there are new blockchain innovations.



3.2 TRIBES

The main difference between the Octahedron PBFT and classical BFT is that instead of having the same weight for each node in the case of the BFT, Octahedron PBFT nodes have voting power which are determined at genesis,

分子白皮书 2.0 29 / 32

or are changed over time depending on the blockchain characteristics. These nodes that have voting power are called super tribes. Super tribes participate in the consensus protocol by broadcasting cryptographic signatures, or votes, to agree upon the next block.



Block Verification Process

3.2.1 Super tribes

In the MOS system, super tribes play a significant role in the community governance. The MOS consists of 101 super tribes. These super tribes are primarily involved in voting as part of community governance. These super tribes can be replaced but the number of super tribes allowed will always be fixed at 101. Users can apply to become super tribe after paying a certain amount of MOF as a security deposit. All MOF holders will then vote to decide who will be the 101 super tribes that will represent them. Voting requires the use of MOF tokens and is conducted using MOS smart contracts (see 3.2.2 for details). The super tribe is responsible for community governance and on-chain maintenance. They have rights to mine blocks and vote on governance proposals.

3.2.2 Super tribe elections and replacement

In order to ensure fairness, the super tribe election is an on-chain voting process where MOF holders' s votes will be recorded on the blockchain. In order to ensure the stability of the community and to avoid the excessive concentration of power in certain super tribes who are allies, the super tribe election is set to automatically occur every 100,000 blocks. All users with MOF can vote through smart contracts. Each MOF is equivalent to 20 votes. Users can vote for 0-20 candidate sets according to their own needs, but each MOF can only cast 1 vote for a maximum of 1 candidate at a time.

After each super tribe election is completed, the newly appointed super tribes must pay no less than 300,000 MOF as a performance bond, and the deposit is locked to the super tribes' contract address. The security deposit is locked after the election is successful and can only be withdrawn after exiting they retire from being a super tribe. The 300,000 MOF is the initial default

分子白皮书 2.0 M O L E C U L A R 30 / 32

guarantee amount. In the future, with the progress of community autonomy, the guarantee amount can be changed by voting.

3.2.3 Rights and Obligations of Super tribes

Super tribes are an important part of MOS community architecture and organizational governance. The most important obligation of the super tribe is to produce blocks (that is, package transactions) on behalf of MOF holders, provide computing resources, and ensure the smooth operation of the network. In order to ensure that the super tribe can properly fulfill the obligations of maintaining the governance on the chain, all super tribes must have certain technical capabilities, hardware equipment and the ability to operate and maintain the blockchain.

The super tribe is responsible for participating in the on-chain governance of MOS. It can create proposals for community governance (such as MOS parameter changes, MOF transfer fee rates, etc.) and vote. In order to prevent malicious proposals, super tribes must pay a minimum of 100 MOF when launching a proposal. Once a proposal is released, the proposal fee is automatically transferred to the chain and destroyed.

A proposal is considered approved if and only if it meets the following conditions:

- No less than 2/3 (ie, 68 and above) of super tribes participate in voting;
- No less than two-thirds of the super tribes voted in favor of the proposal.

3 3 CONSENSUST

The Octahedron protocol requires a fixed known set of tribes to operate, and each tribe is identified by their public key. Tribes will attempt to come to consensus on one block at a time. Voting for consensus on a block proceeds in tranches. Each tranche has a tranche-leader, or chief, who leads a block. In stages, the tribes will vote on whether to accept the proposed block or move on to the next. The chief for a tranche is chosen from an ordered list of tribes based on their voting power.

Octahedron's security derives from its use of optimal Byzantine fault-tolerance via super-majority (>2/3) voting and a locking mechanism.

Together, they ensure that:

 $\geq 1/3$ voting power must be Byzantine to cause a violation of safety, where more than two values are committed.

The protocol can identify any set of tribes that attempts to violate safety protocols including voting for conflicting blocks and broadcasting unjustified votes.

分子白皮书 2.0 M O L E C U L A R 31/32





3.4 PREVENTING ATTACKS

Since having more than 1/3 of voting power can influence a block, malicious actors can stop the blockchain by going offline or by not broadcasting their votes. These malicious actors can also censor specific transactions by rejecting blocks that include these transactions. This would cause a significant portion of block proposals to be rejected, thus slowing down the rate at which blocks commit to the blockchain. They can also significantly slow down the system by slowing down the speed at which they broadcast votes.

In the case that these attacks succeed, a subset of the domains must coordinate externally to fork the chain and decide the initial subset of domains with their signatures. Domains must bear in mind that if they decide to fork, they forgo any collaterals on all other forks. End-users will then be prompted to decide on whether to support the fork. If more than half of the original domains vote in support, the fork will proceed. Since no non-synchronous BFT algorithms can come to consensus when more than 1/3 of votes are malicious, yet a fork assumes that malicious attack has succeeded, the coordination of a fork cannot be done automatically via a protocol. Hence, the fork will only proceed when users have come to an agreement via a social consensus, perhaps, via a phone app voting mechanism. In unusual cases where 2/3 of votes are malicious, these malicious actors can commit arbitrary, invalid states. This is the same for any BFT consensus system. Invalid states are more difficult to detect because they require non-validating peers to verify blocks, which means that they will have to keep a local copy of the state and execute each transaction again to compute the state root independently for themselves. Similar to forking and censorship attacks, when the invalid state is detected, the only solution is to come to a manual decision based on social consensus. As a means of deterrence, domains of Octahedron blockchain must go through Know-Your-Customer (KYC) procedures, malicious attackers can be identified and brought to the law.

3.5 CROSS-CHAIN CAPABILITIES

A specialised domain can act as a bridge between two or more cryptocurrencies. These domains whose primary role is to connect two domains together is called a "bridge". A bridge is similar to the relationship between the Mega Operating System and the domains; both must keep up with the latest blocks of the other in order to verify proofs that tokens have moved from one to the other.

分子白皮书 2.0 32 / 32 / 32

TEAM MEMBER



Jayden Wei

CEO / Chief Executive Officer

Jayden is an experienced fund manager with a demonstrated history of working in the financial services industry. Jayden has extensive experience in technological investments and has been an avid investor in seed-stage technological start-ups. He runs his own start-up incubator and is also the manager of Australia' s first blockchain venture capital fund. Jayden is deeply passionate about digital technology, he hopes to continue to develop and invest in technological projects with the aim of improving society through better use of technological resources. This has led him to become an early investor in the blockchain industry; he believes that blockchain technology will revolutionise the digital economy while also making considerable impact on the traditional economy which still faces issues regarding privacy, transparency and efficiency.



Jason Christopher

CTO / Chief Technology Officer

Jason has been aware of the impact that blockchain may have on the world since he learned about Bitcoin in its early years of development. His interests lie in potential blockchain applications which may make a difference to the world. Jason has been closely following technological breakthroughs in the field over the years. As the Chief Technology Officer, Jason is focused on the development of the project's technological infrastructure, ensuring the functionality and efficiency of the transaction systems. Additionally, Jason is responsible for the network security of the Molecular Future group. He oversees operations of the entire security team.



Ryan XU

Honorary chairman of the foundation

Over 7 years' experience in fintech. Investor in bitcoin mining and other related projects. Initiatives include the Melbourne Bitcoin Technology Centre, Bitcoin Boulevard Australia and Bitcoin Buskers Awarded "Blockchain opinion leader" in 2016.



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