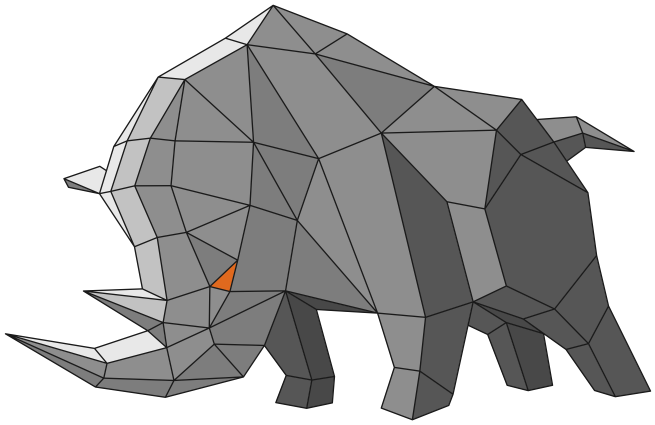

CYBEX

CYBEX: A Decentralized Exchange for Crypto-Assets

White paper (beta)
version 1.0

From the CYBEX Team

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ABSTRACT

CYBEX is a decentralized exchange that seeks to improve liquidity of crypto-assets that' s more transparent and secure than the centralized counterparts currently in the market today. CYBEX is an ecosystem that' s built and operated by a network of likeminded partners across the globe in a decentralized network. Its core is based on the Graphene Blockchain Library that' s highly efficient and secure, able to scale up to over 100,000 trades per second with its delegated proof of stake consensus scheme. The exchange will also launch with key features such as atomic swap to facilitate cross-chain trading, hardware multi-signature custody for gateways to ensure the security of crypto-asset management, built-in ICO launching platform and templates to facilitate decentralized ICOs, price-stable currencies to minimize the risk of volatility in trading, and a core team that has a proven track record in business development and operations to ensure the exchange never wants for business.

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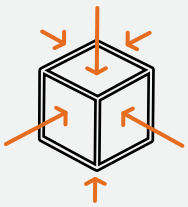
1. THE CENTRALIZATION PROBLEM

As market interest in cryptocurrencies and the underlying blockchain technology mounts, we're seeing an exponential rise in valuation as well as variety. As of this writing, according to CoinDesk, the cumulative ICO funding has risen to 3.8bn USD in value across 200+ tracked projects, an estimate that's likely only a subset of the overall market.

Most crypto-assets traded today are done so over centralized trading platforms, which faces a slew of challenges

- **Opaque:** centralized platforms operate in a black box, with the constant risk of investors falling prey to the platform operators' penchant to leverage information asymmetry to their favor. Illicit practices such as price manipulation, improper usage of investor funds are commonplace occurrences.

- **Illiquid:** most projects launching ICOs are unfinished or uninitiated, with no utility token to actually distribute to their investors, instead issuing IOUs with the promise to issue tokens at a later date. These IOUs often have limited liquidity, with trading (if any is even offered) mostly limited to the platform that issued the ICO in the first place, or some other centralized exchanges with exorbitant listing fees.



- **Insecure:** centralized platforms are vulnerable to DDOS attacks that not only severely disrupts trading, but also erodes investor confidence in the process and the ICO model as a whole. They' re also juicy targets for unscrupulous hackers (think Mt. Gox, Bitstamp, Bitfinex, DAO, CoinDash... the list goes on).

Before the Chinese government banned ICOs in September 2017, the CYBEX team was the ICOAGE team, which created and operated the largest ICO platform in China. During its 6 months of operation, ICOAGE was able to successfully raise over 170mn USD worth of funds for over 40 projects listed on its platform, including the likes of TenX, Status, iEx.ec, EOS, Otum, Storj and more.

As a centralized ICO platform and IOU exchange, ICOAGE received numerous DDOS attacks averaging 120gb per attack, but our security measures thankfully ensured that no damage was ever caused for our users. But the frequency and magnitude of these attacks prompted us team to start building a decentralized exchange that would be resistant to such attacks.

2. CYBEX: A DECENTRALIZED EXCHANGE

CYBEX is a truly decentralized exchange for digital assets, built on and extended from the well-known BitShares and its underlying Graphene Blockchain Library, which has spawned a large ecosystem of applications.

Once EOS, the successor to BitShares launches, CYBEX will migrate its underlying technology onto EOS.

CYBEX is designed to enable a safer, more efficient, and easier-to-use transactional experience. To that end, the team has focused on innovations in the protocol and application layers, coupled with commercial expertise to ensure the healthy operation of the exchange. Details for these core capabilities are found in Section 3.

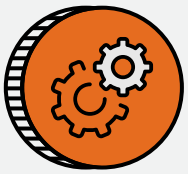
Below is a simple explanation of the key concepts within the CYBEX ecosystem.

2.1 The CYB Token

In the CYBEX network the base token is called a CYB. It is dividable into 10^5 = 100,000 sub-units. It has value, can be transferred on the blockchain and are secured by an Elliptic Curve Digital Signature Algorithm (ECDSA) on the curve secp256k1.
In contrast to most crypto-currencies, CYB is not a currency per se but rather have the following set of core utilities,

• Right to participate: CYB is the fuel of the CYBEX ecosystem with all core rights and privileges tied into the token as the proof of stake and consequently the right to participate, vote, and contribute in the ecosystem.

• Medium of exchange: CYB is underlying medium of exchange in the CYBEX ecosystem in which all fees are denominated in CYB.



• Functionality: CYB is used to realize all the financial instruments (e.g., price-stable assets) on the exchange.

2.2 Witness

The witness collects transactions, bundle them into a block, and broadcast it to the network. They're like the miners in Bitcoin, except CYBEX's consensus algorithm is delegated proof of stake (DPOS), not proof of work as in Bitcoin.

For each successful block bundled, the witness receives a payment from a limited reserve pool. The size of the pool and the payment amount are decided through voting by ecosystem participants.

2.3 Committee

The committee is an elected body that governs the inner workings of the CYBEX ecosystem. After CYBEX launches, all aspects of the ecosystem's operations, including roles, products, fees, budget etc. are all decided by the committee.

2.4 Delegated Proof of Stake

Compared to Bitcoin's proof-of-work (POW) consensus, delegated proof-of-stake (DPOS) does not eliminate the need for trust altogether to avoid the high cost and inefficiencies associated with POW. Each user in the ecosystem is able to upvote any number of nodes. When any node reaches over 1% of all the votes (by total stake in the ecosystem), they are then eligible to become a witness to produce blocks as well as receive payment for their contribution. The slate of active witnesses is updated once every maintenance interval (1 day) when the votes are tallied.

Each witness takes turns to produce a block. The order in which each witness produces a block (or the schedule) for a single round is deterministic, with transactions confirmed on average within 1 second. After all witnesses have had their turn, the order of the turns is shuffled and another round begins anew. If a witness does not produce a block in their time slot, then that time slot is skipped, and the next witness produces the next block.

A witness can have multiple instances ready to take over on different physical machines/locations. That should mitigate DDoS attack vector. If none of witnesses was able to produce a block, the network would come to a halt and users would not be able to cast a vote (transaction) to vote in new witnesses. The chances of that happening are very tiny and stake holders can increase the number of witnesses by vote.

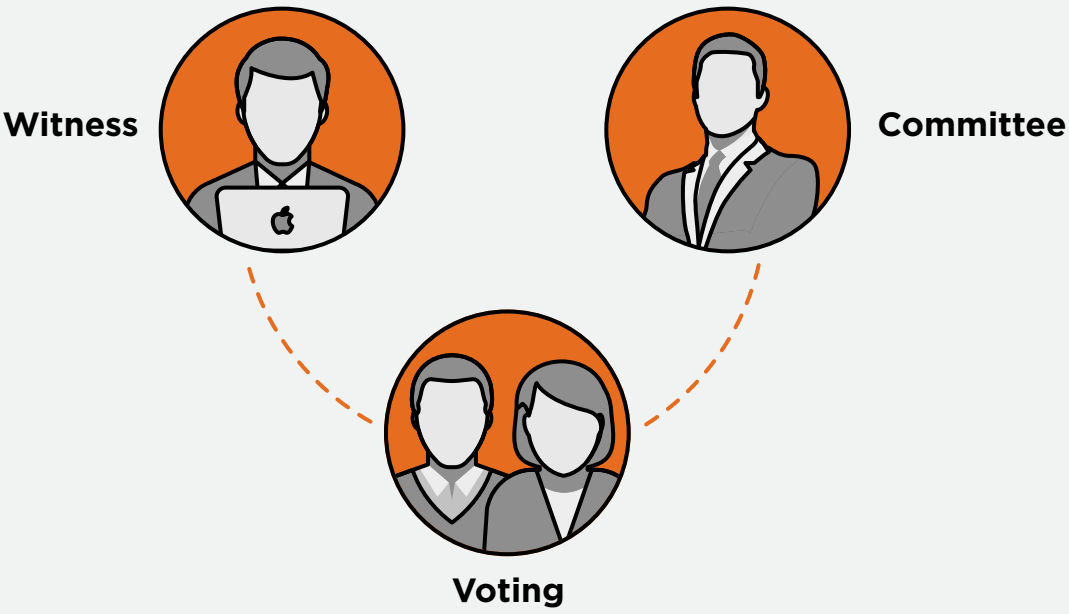
2.5 Voting

Users can vote on almost every aspect of the CYBEX ecosystem's operations, not just to select witnesses. All network parameters, from fee schedules to block intervals and transaction sizes, can be tuned via votes.

Users can even vote for others to vote in their stead, called proxy voting. This is to ensure that everyone in the ecosystem is properly represented, even if they do not have the time or the inclination to weigh in on every single issue.

2.6 Budget

CYBEX has a pool of budget that pays for the various tasks performed by ecosystem participants (e.g., witnesses). A pool will be reserved upon CYBEX's launch, and all subsequent budget allocations, tasks and associated fee structures could be decided by subsequent votes.



3. KEY CAPABILITIES

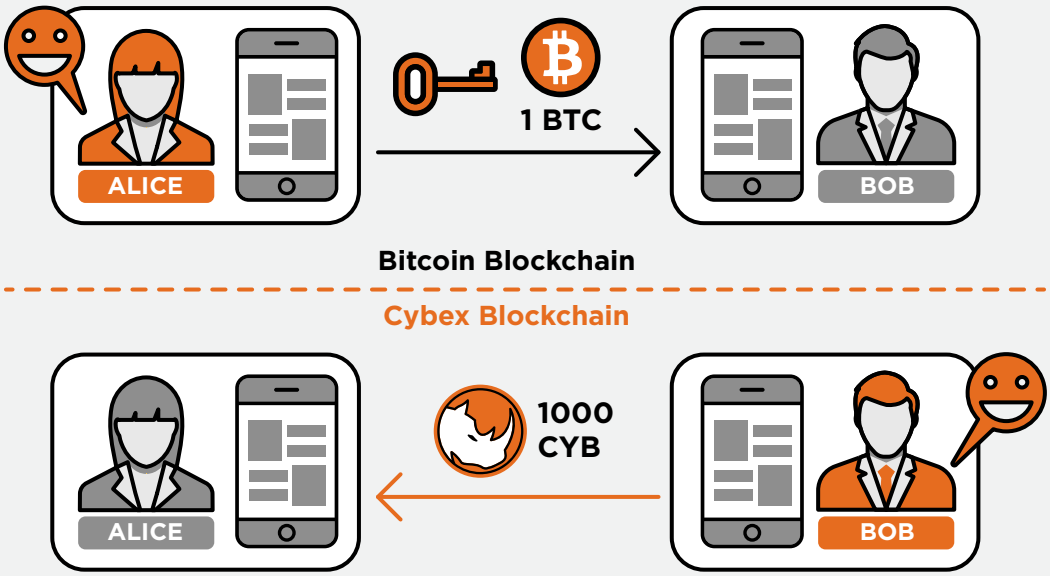
Although BitShares was highly innovative in its conception as well as its underlying technology, it has not been a widely adopted platform for crypto-asset trading.
We believe that, by bringing innovations into the protocol layer to facilitate easy and secure transactions, the application layer to improve user experience, and by injecting commercial & operational expertise could all help to greatly augment the adoption of a decentralized exchange.
Towards that end, CYBEX brings the following set of improvements and capabilities to bear,

- Atomic Swap
- Crypto-asset Custody for Gateways
- Decentralized ICO Platform
- Price-Stable Currencies
- Mobile User Interface
- Business Development
- Tokenizing Main Street Businesses

3.1 Atomic Swap

3.11 Why Atomic Swap?

Atomic swaps, or atomic cross-chain trading, is the exchange of one cryptocurrency to another cryptocurrency, without the need to trust a third-party.

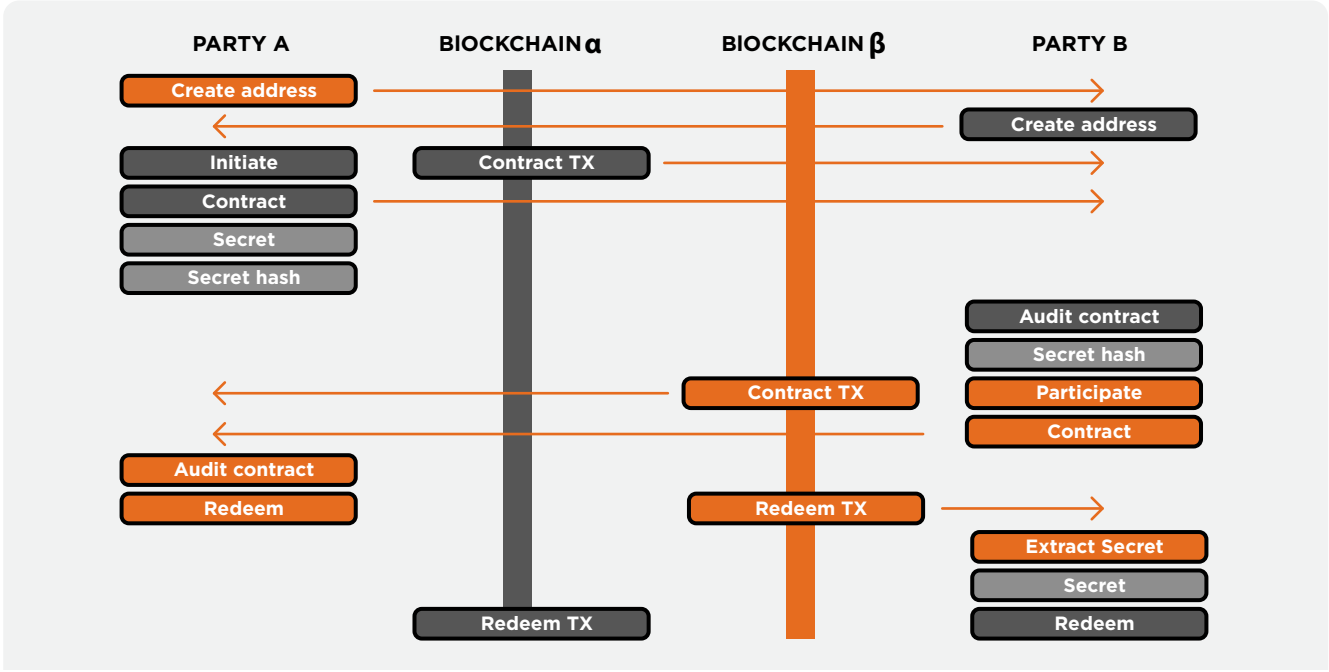


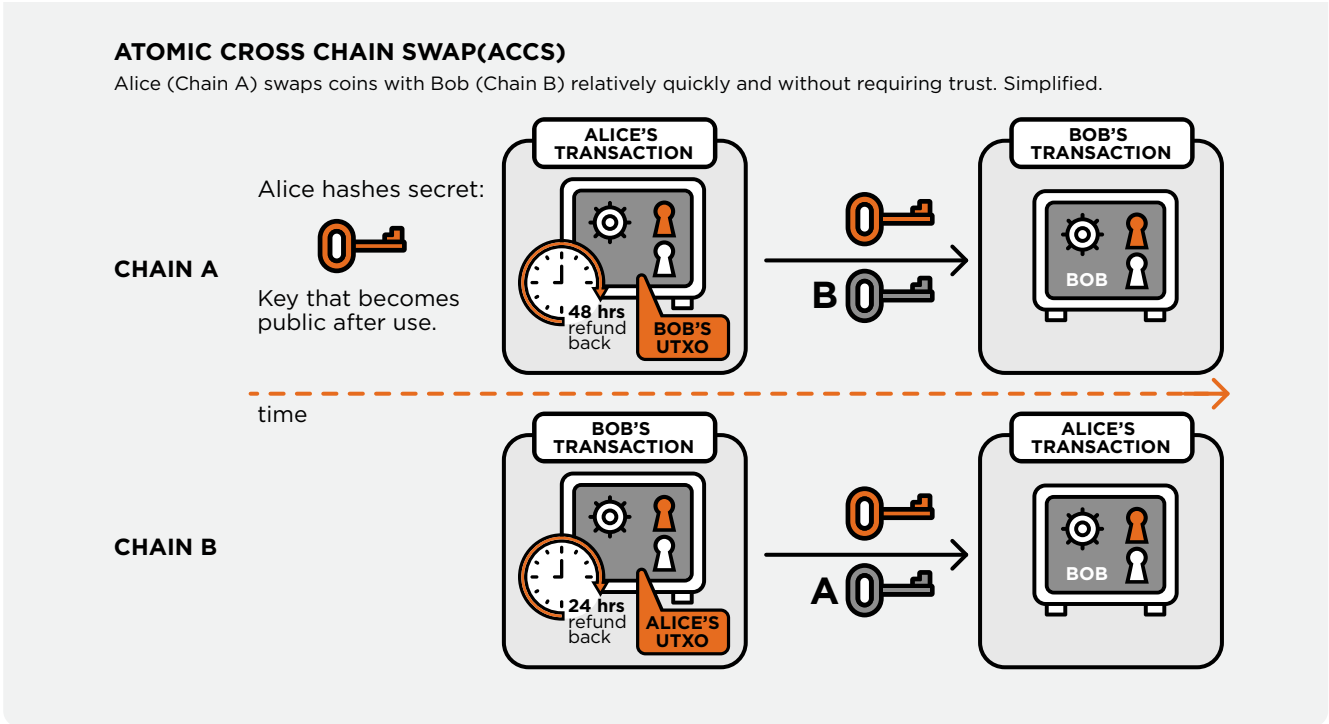
For example, Alice may send Bitcoin to Bob's Bitcoin address, while Bob would send CYB to the first Alice's CYB address. However, as the two blockchains are heterogeneous and transactions can't be undone once mined, this swap process risks counterparty default – i.e., one of the fails to honor their end of the deal. In the past, the most commonly seen solution is to introduce a mutually-trusted third party (e.g., a centralized exchange) to provide an escrow service, but as we've seen, it's difficult to trust such a centralized entity. An atomic cross-chain swap solves this problem without the need for a third party.

3.12 Atomic Swap in CYBEX

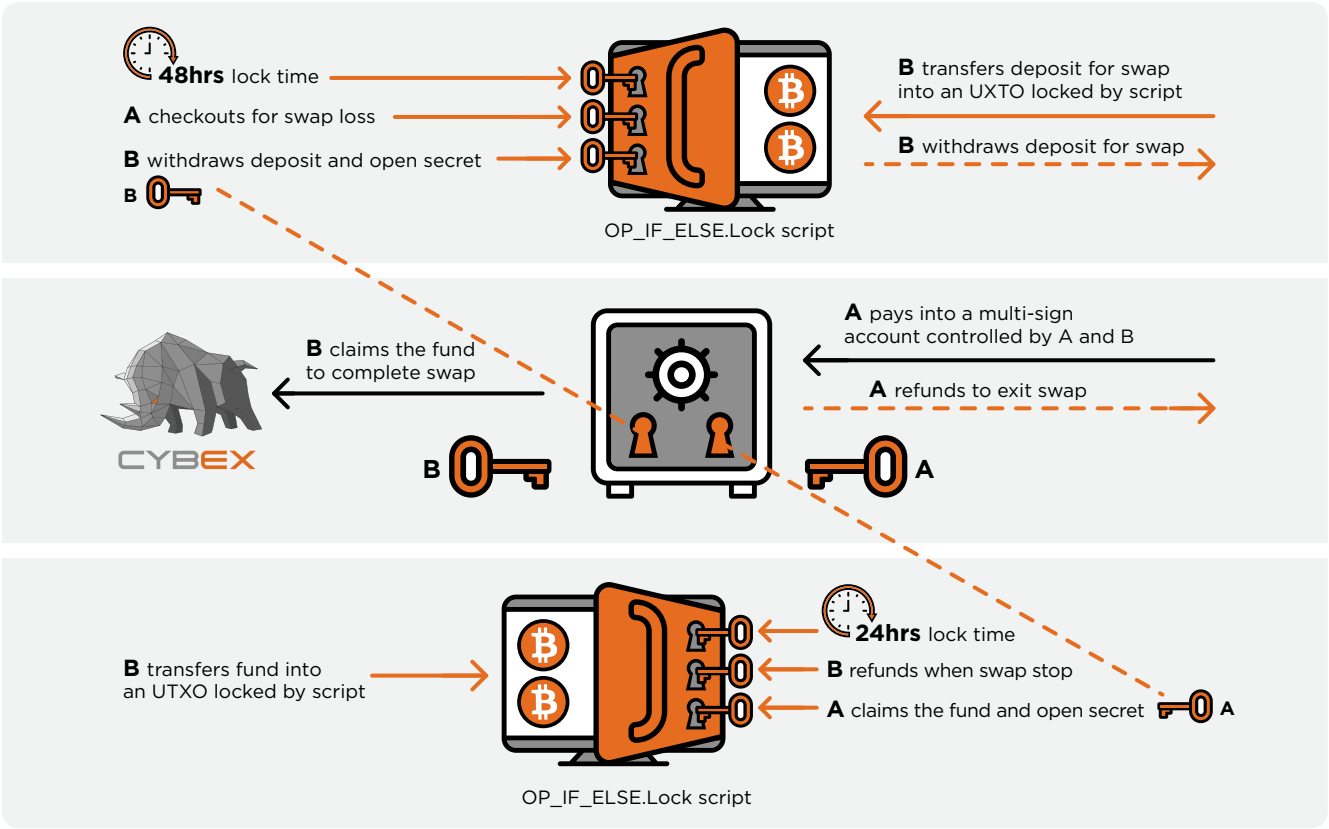
Atomic swaps between CYBEX and Bitcoin involve each party paying into a locked account. In the case of CYBEX, it's a multi-signature account; in the case of Bitcoin, it's an UTXO with a scripted lock. The creator of Litecoin, Charlie Lee, successfully implemented and demonstrated atomic swaps using Litecoin in exchange for Bitcoin, Vertcoin and Decred. However, this type of swap only works between the Bitcoin-like chains with similar scripting systems as well as support for CLTV (Check Lock Time Verify) functionality.

With CLTV script, lock time windows can be set for the refund operation, the initiator sets 48 hours lock time for the participator to pay and redemption, the participator sets 24 hours lock time for the initiator to redemption. This time-locked refund scheme guarantees the atomic integrity that any party can withdraw his fund completely when the other party quits the swap process.





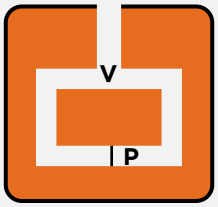
But since CYBEX doesn't have the Bitcoin-like scripting system, we use a multi-signature account to lock the CYB that the initiator pays to participator (assuming that the initiator pays CYB) and using the script to lock Bitcoin that participator pays to initiator in UTXO.
One drawback is that the multi-signature method cannot implement a recovery and refund process, CYBEX resolves this with a requested deposit to incentivize and guarantee the trade's integrity.



Atomic swap between CYBEX and Bitcoin

3.13 Operational Details

In CYBEX, an atomic swap begins with a cut and choose game for public key and key hash exchange



Zero Knowlegde Proofs
Cut-and-choose paradigm.

Through a batch of interactions, both parties will have the other's temporary public key and a hash of key with high probability proof that they are generated from the same private key. Then the public key and hash of private key will be used in the Bitcoin script to verify the redemption.
Such a mechanism guarantees safe and direct exchange of different crypto currencies (such as Bitcoin and CYB) in a complete peer to peer manner. However, counterparties match and liquidity are always a challenge to a decentralized exchange.

3.1.4 Facilitating Liquidity

Atomic swap only solves the problem of trading across chains in a trustless way. It does not, however, solve the problem of how both sides of the trade find one another. In fact the way many atomic swaps have been demonstrated technically has relied upon the fact that both trading parties do not just know of each other, but are in constant communication over some instant messaging system.

To help facilitate liquidity, CYBEX feeds outside exchange price for trading pairs (e.g., Bitcoin vs CYB, CYB, as a token, will be traded on different centralized exchanges after crowd-sales) to all witness nodes, which will then post the fed-in price onto the chain. Users then place swap orders with desired pricing also onto the chain, the witness nodes then will automatically match these orders.

During the initial bootstrapping phase of the ecosystem, CYBEX will incentivize experienced market makers and trading-bots to provide much needed liquidity boost. Some traditional gateways developed and operated by the CYBEX core team or other competent ecosystem partners will be long-term coexist with atomic swap capability to provide IOU service with high level security. CYBEX has already launched a project to integrate CYBEX client into a multi-cryptocurrency wallet supporting customized Bitcoin script and multi-signature, hardware security level in second phase. This project can facilitate swaps in one wallet with one click to be more user friendly.

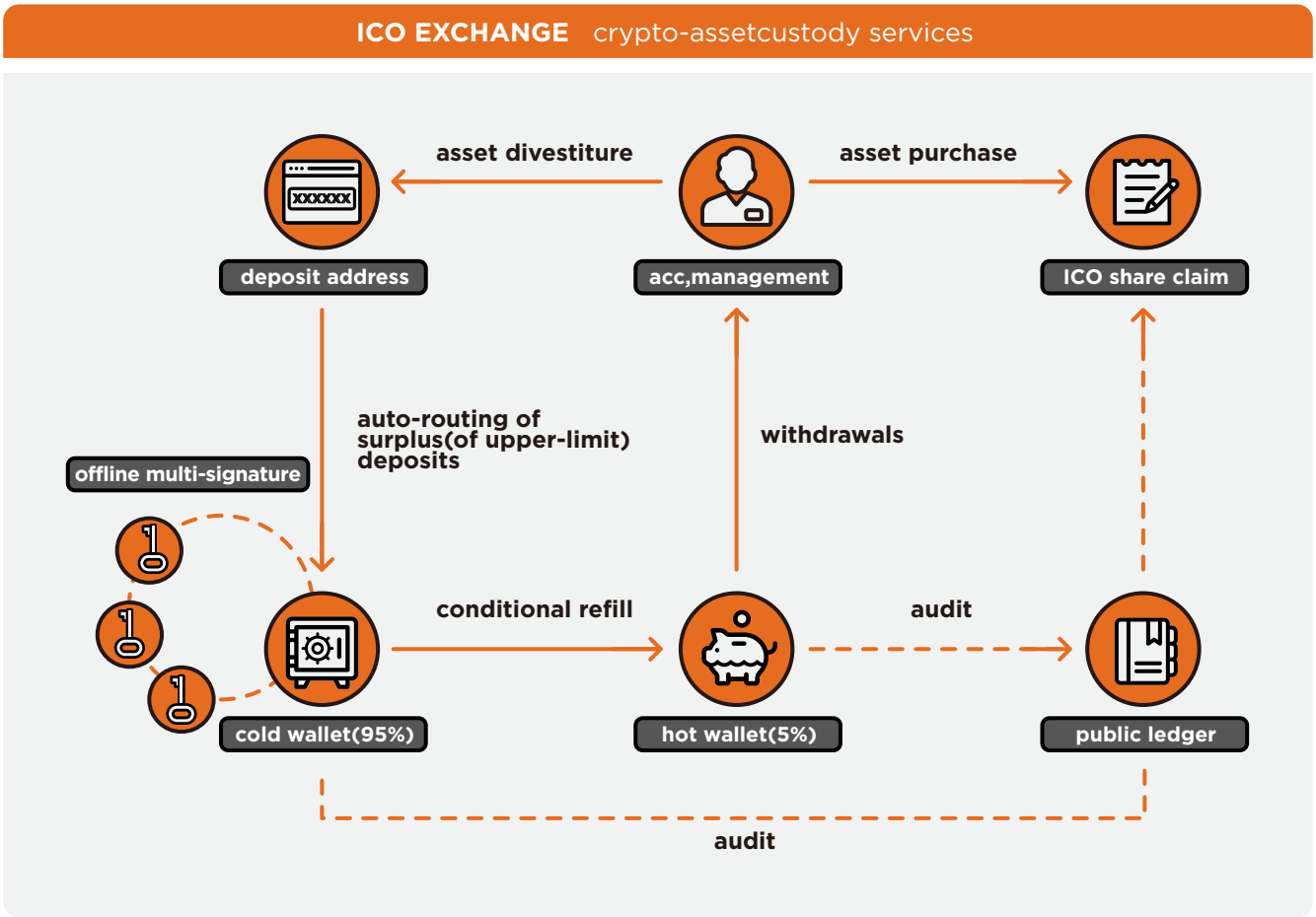
The swap capability between CYBEX and other mainstream cryptocurrency will innovate many financial tools, such as stable priced crypto-assets capable of maintaining price parity with a globally adopted currency (e.g. U.S. dollar), it has high utility for convenient and censorship resistant commerce. This can be achieved by tracking the value of a conventional underlying asset such as Bitcoin by means of an over-collateralized, counterparty risk-free, smart-contract secured blockchain loan.

3.2 Crypto-asset Custody for Gateways

3.2.1 Gateways

Gateways are the recommended method of moving funds into or out of the CYBEX network. They simplify the process of moving funds from one blockchain-based crypto currency to another.
Gateways are basically equivalent to the standard exchange model where you depend on the solvency of the exchange to be able to redeem your coins. Generally, gateways issue assets prefixed with their symbol, like CYB, APE, APD. These assets are backed 100% by the real BTC or ETH or any other coin that people deposit with the gateways.

An CYB.BTC is thus in theory equivalent to the BTC you get on Poloniex, which could be prefixed POLO.BTC. In both cases, you rely on the service providers to remain solvent in order to back the value of the assets they've issued. Although gateways only provide a single service, which is in itself just a single part of an exchange's overall operations, the security requirements are nevertheless high. CYBEX, with support from its ecosystem partner, Nebula Crypto-Assets, has an independent crypto-asset custodian service prototype for the gateways securing their holdings of crypto-assets. This critical security feature will help to streamline gateway setup and lower the risk of centralized management of high-valued crypto-assets.



3.2.2 Hot Wallet

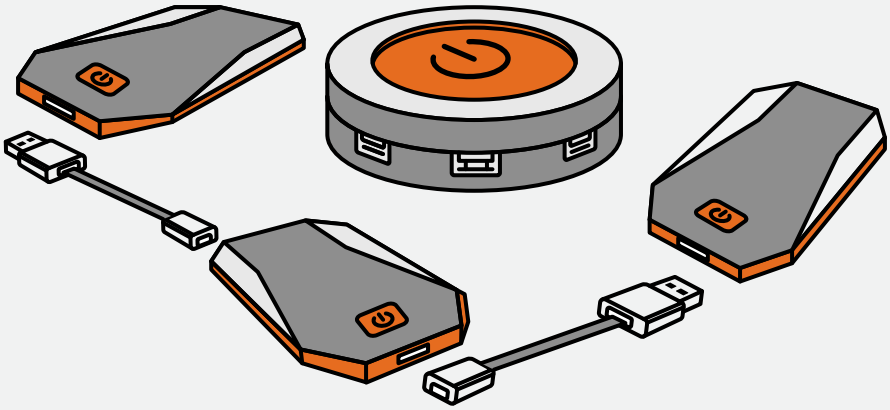
The system maintains a small percentage of holdings (e.g., 5%) in an online hot wallet with all deposit addresses in it, generated once a user deposits his crypto-assets in his CYBEX account page. The user can voluntarily withdraw his assets from the gateway, which are automatically sent by the hot wallet. The system will evolve over time to optimize the inflow, outflow, and the size of the hot wallet buffer in order to minimize the number of outbound transactions performed by the cold wallet to maximize security.

3.2.3 Cold Wallet

For the gateway's remaining crypto-asset holdings (e.g., 95%), CYBEX recommends the high-security cold wallet solution designed by our ecosystem partner Nebula Crypto-Assets Custody.

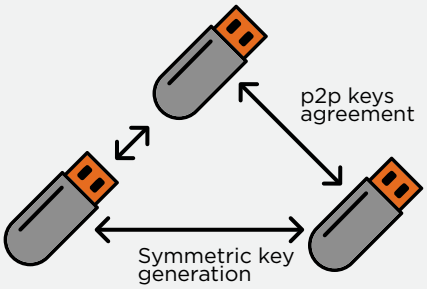
Wallet of Crypto-Assets for Gateways

• Offline secret sharing hardware wallet • What you see is what you sign



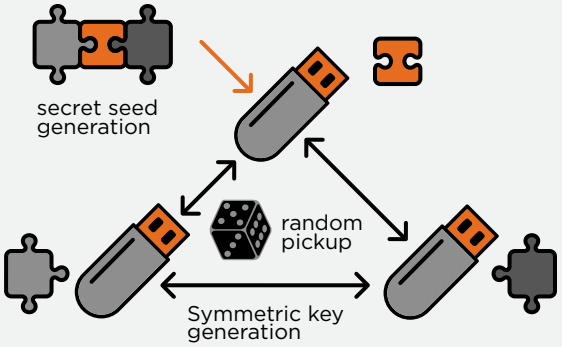
Multi-signature scheme is considered a cryptographically-secure solution for high-valued assets. With stateless script, the Bitcoin blockchain supports multi-signature from the early stage. Ethereum's community developed a smart contract to implement the scheme, but the security of smart contracts has been always a concern for assets holders, especially after severe vulnerabilities (e.g., Parity) were revealed during 2017. Other coins, such as Monero, have yet to release their multi-signature features. Nebula Crypto-Assets Custody designed a single-signature solution for multi-signers with a secret sharing algorithm. To solve the security problem that the entire private key is recovered in memory, the design uses banking level wys/wys (what you see/what you sign) hardware to share and recover the secret only inside the hardware key.

Decentralized Keys Agreement



- Secrets only exist in U-key COS
- Decentralized keys agreement generates communication key
- A random picked U-key for the secret seed generation
- Distribute secret shares into every U-key

- True random generator FIP140-2
- Security elements EAL 4+
- 128*64 OLED display
- Support ECDHE and BIP32
- SHA3,AES256, SH256, Secp256k1



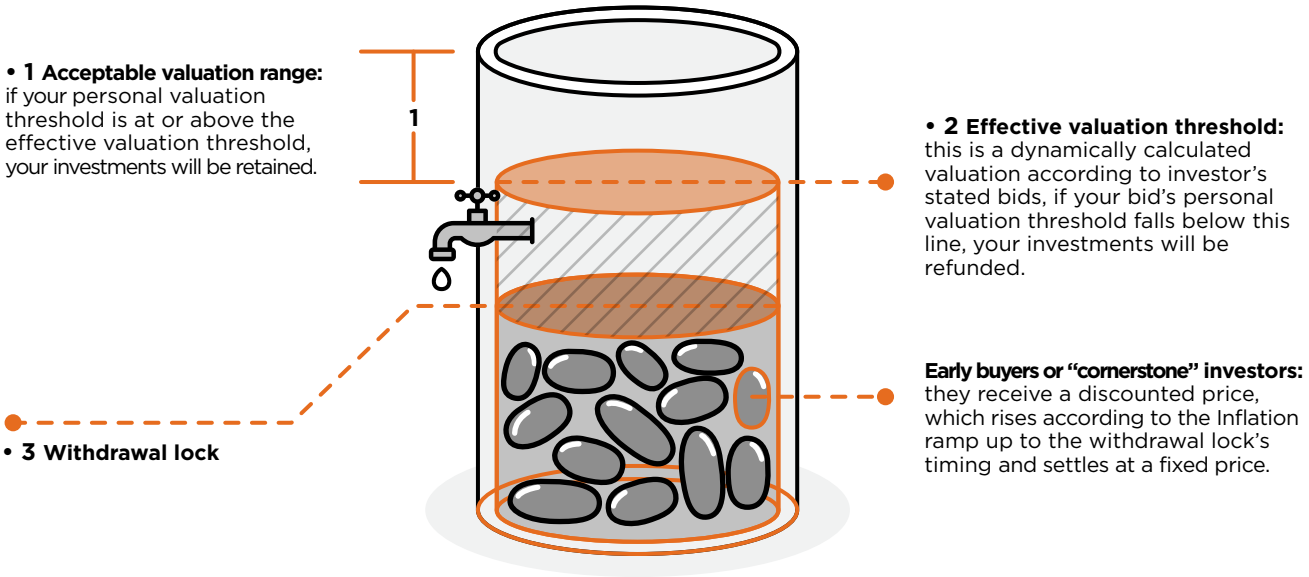
The co-signing process could be done in a decentralized manner, whether in-person or online. The entire signing process' security is not contingent upon how secure the USB hub or internet routing is by incorporating ad-hoc key whitepaper algorithm to secure the P2P communications.

3.3 Decentralized Crowd SalesPlatform

We built CYBEX as a place to not only trade assets, but also to issue assets and raise funds through crowd-sales. To facilitate crowd-sales, CYBEX will provide a suite of template contracts for the issuer to choose from. One such template is an “interactive coin offering”, proposed by Vitalik Buterin and Jason Teutsch. The purpose of this design is to solve a classic crowd-sales dilemma: How to value the token? Unlike an equity distribution event in which prospective buyers can estimate share values based on existing and potential future revenue streams, tokens sales may not project any revenue at all. Since traditional analysis fails to estimate initial market valuation for new tokens, buyers must rely on new signals and methods for determining market prices. The token issuer, on the other hand, faces the unprecedented challenge of not knowing her buyers. In particular, he cannot tell whether or not two distinct purchasing addresses belong to the same person.
The perfect token crowd-sales method should resolve both sides’ challenges,

- A fixed amount of currency buys at least a fixed fraction of the total tokens
- Everyone can participate

If one unit of currency purchases at least p fraction of the tokens, then the total sale revenue cannot exceed 1/p.
Clearly any fixed valuation scheme cannot guarantee universal participation, however, we shall construct a crowd-sales protocol such that, if each participant specifies a desired purchase quantity at each valuation, then the ultimate token cost to percentage ratio satisfies all buyers (with respect to both valuation and participation).



The proposed crowd-sales protocol includes:

- **Basic step:** In each block range, buyers can either purchase tokens or voluntarily withdraw funds from the crowd-sales. Buyers specify a maximum sale valuation at which they are willing to participate, and if the sale amount ever reaches this personal threshold, the buyer’ s bid is cancelled and she receives a refund. We add support for bid activation triggered by sale lower bounds.

- **Withdrawal lock:** After a certain number of blocks, voluntary withdrawals are no longer permitted. In a 30-day crowd-sales, for example, the smart contract might permit voluntary withdrawals during the first 20 days, but during the last 10 days, only automatic withdrawals are allowed.

- **Inflation ramp:** Buyers who purchase tokens early receive a discounted price. The maximum bonus might be 20% (a typical amount for crowd-sales today). The bonus decreases smoothly down to 10% at the beginning of the withdrawal lock, and then disappears to nothing by the end of the crowd-sales.

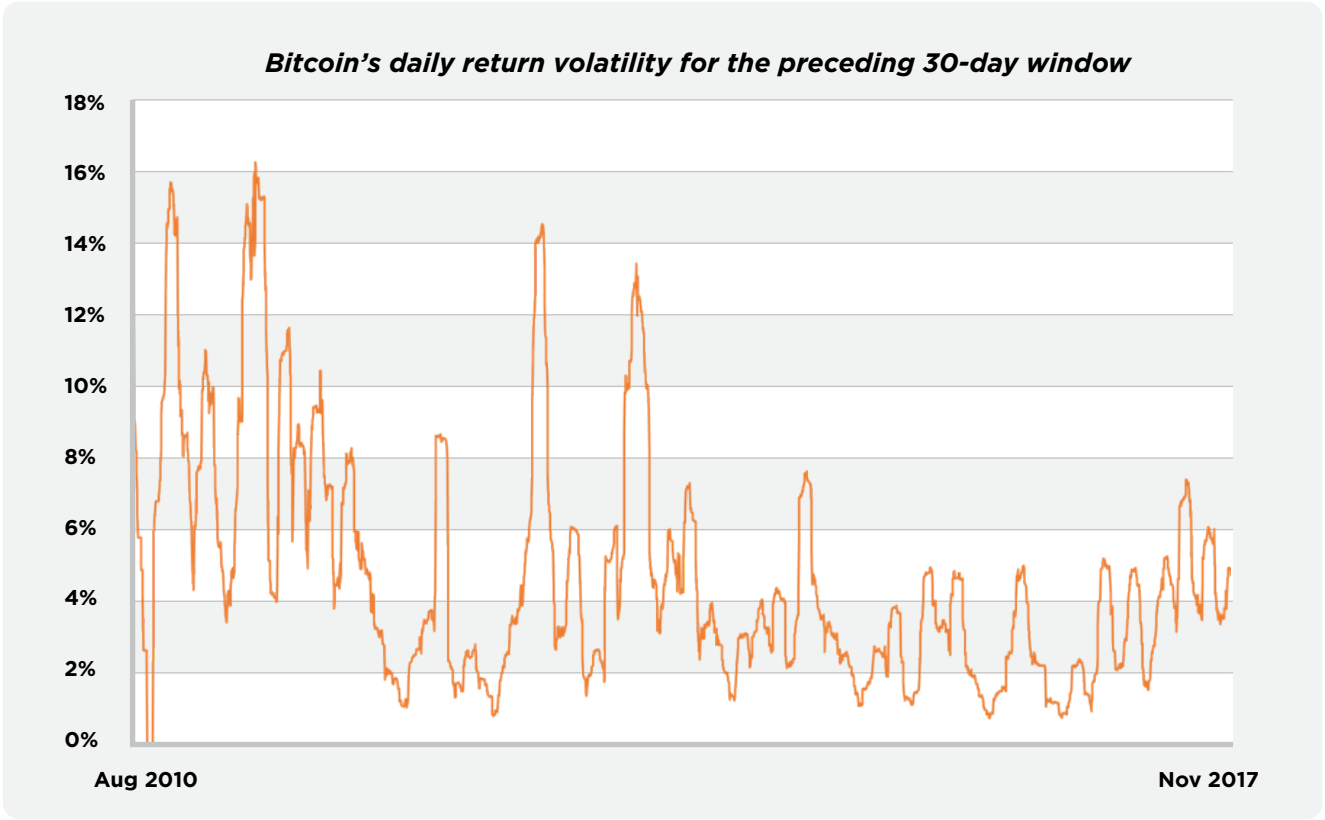
To implement crowd-sales contracts in CYBEX, developers modified some objects, such as assets issuance with lockup attribute and swap operation field will be added to the object extensions of native data structure. The logic of vesting_balance_object/db_balance and wallet API, list_balances, claim_balances etc will be redesigned.

3.4 Price-Stable Currencies

3.4.1 Crypto-asset volatility

One of the major impediments to holding any asset is its unpredictable volatility. The more volatile an asset's relative price is to other commonly-held assets (e.g., fiat currency such as USD), the more risk there is in holding it. If volatility is sufficiently high, such assets become too risky to be used in everyday commercial activities.

Crypto-currencies, being a relatively new asset class, is usually significantly more volatile than their non-digital counterparts. Bitcoin/USD pricing's volatility is lowering slowly over time, but it's still around 5-6%. Compare that to a more conventional asset's volatility, such as Gold/USD pricing or USD/EUR exchange rate, we see they're only around 0.5%.



One way to mitigate volatility and risk is to have price-stable assets in the exchange that's pegged to a relativelyless-volatile asset, say, the US dollar. This asset acts as a stable anchor against which all other crypto-assets could be yalued, and each unit of such an asset will always give you a predictable return.

We intend for CYBEX to have built in price-stable assets. One such asset is a series of Bitcoin-pegged stable currencies that are designed to be equivalent to stable currencies such as the US dollar, which we'll refer to as "cyb.USD". What we're describing below is a potential implementation of a price-stable asset. The idea of such currencies is not new – BitShares for example, has such currencies in trading in its ecosystem. However, pegged currencies within the BitShares ecosystem suffer from two distinct challenges,

- Pegged currencies are in themselves too volatile (hence defeating the purpose of the peg) as it is collateralized by BTS, a relatively illiquid crypto-asset
- There are too few issuances of the pegged currencies as there are no incentives to issue them

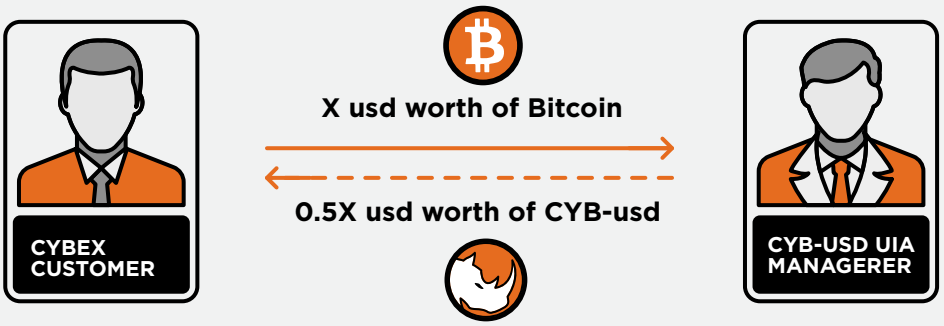
In CYBEX's design, the collateral is based on BTCs, a far more mainstream and liquid cryto-asset. Our built-in interest rates also give dynamically adjusted incentives for BTC holders to issue cyb.USD, hence avoiding both pitfalls faced by the BitShares ecosystem.

3.4.2 Bitcoin as Collateral

The idea behind a price-stable asset is that when you trade it into another asset, the trading ratio is fixed. For example, ideally, we'd want to make sure that every single cyb.USD can be traded for exactly 1 US dollar.

However, given the legal and regulatory ambiguity surrounding the use of fiat currencies in a cryptocurrency exchange such as CYBEX, our cyb.USD will instead be traded into another cryptocurrency that's more stable and liquid, such as Bitcoin or Ethereum. In this article, we'll use Bitcoin (BTC) as an example. Hence, every cyb.USD will need to be able to be traded into exactly 1 USD worth of BTC. At the time of this writing, 1 BTC is trading at 9080 USD, which means we would want 1 cyb.USD to be traded for 0.00011 unit of BTC.

If you want to be able to consistently trade cyb.USD into BTC, you'd need to make sure there's a pile of BTCs ready to be traded. That is, whoever is issuing (selling) cyb.USD needs to have a corresponding quantity of BTCs as collateral. Remember how we said the price of BTC vs. USD is pretty volatile? To guard against that type of volatility, we will require that the issuer of cyb.USD set aside much more Bitcoins necessary to cover every single cyb.USD issued – let's say twice. For example, to issue 1 single cyb.USD, which is redeemed for 0.00011 unit of BTC (equivalent to 1 USD), you'll need to set aside twice that, or 0.00022 unit of BTC (equivalent to 2 USD) to cover any volatility.



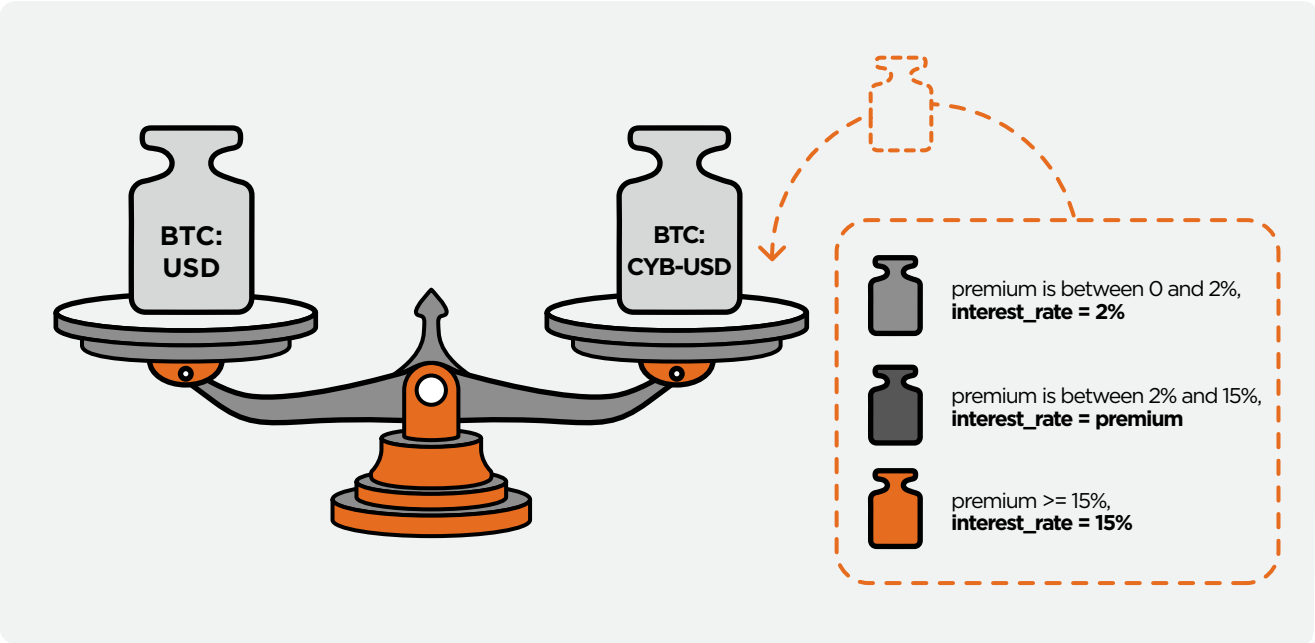
3.4.3 Interest Incentives

Having a cyb.USD sounds great for someone who's holding it. But why would anyone want to issue it? What's in it for them?

That's where the interest comes in. For every unit of cyb.USD issued, the holder of the asset will need to pay the issuer of the asset an interest rate. Think of it as a fee paid to someone who's providing this big pool of collateral as a cushion against market volatilities.

Since CYBEX is a free-market type of decentralized exchange, you aren't always guaranteed to see that 1 cyb.USD will translate into exactly 1 USD worth of BTC. When this happens, CYBEX will adjust interest rates to make sure that issuers are properly incentivized to issue more or less of cyb.USD in order to balance out supply and demand.

For example, if demand for cyb.USD is rising, that means 1 cyb.USD will trade for more than 1 USD worth of BTC. When this happens, we want to increase the supply of cyb.USD to bring that ratio back to a 1 to 1 trading ratio by increasing the interest rate. When the reverse happens, we lower the interest rate to reduce the supply.



Interest payment:

1) Use CYB-usd vs usd real time premium to generate the current (per 8 hour) interest rate.
2)the annualized interest rate moves from 0% to a 15% cap,while the premium goes from 0% up.

In our initial iteration, the interest rate will be calculated in the following manner,

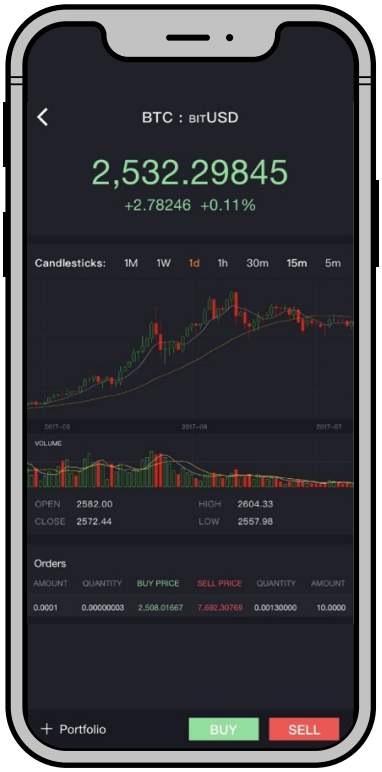
- **b_cyb = # of BTCs traded for 1 cyb.USD on CYBEX**
- **b_market = # of BTCs being traded for 1 USD on a collection of major exchanges**
- **premium = (b_cyb – b_market) / b_market**
- **Setting the interest rate:**
  - In the case that (premium < 0), interest_rate = 0%
  - In the case that (premium is between 0 and 2%), interest_rate = 2%
  - In the case that (premium is between 2% and 15%), interest_rate = premium
  - In the case that (premium >= 15%), interest_rate = 15%

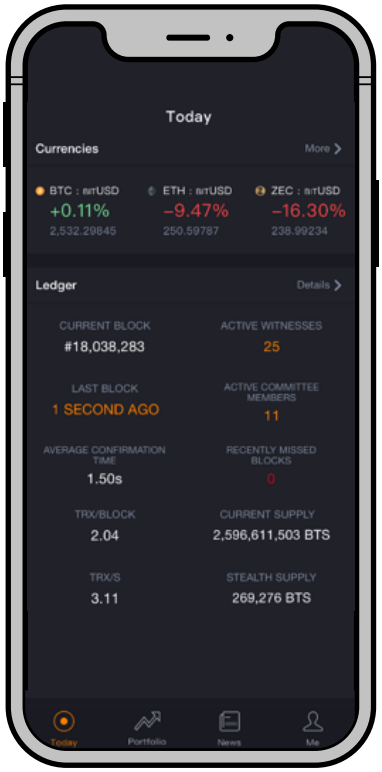
The initial 2% is set to create a threshold to help trigger action on the part of the issuer – people tend to understand a fixed threshold better and are more likely to act upon one. We also cap the interest rate at 15% to make sure that the holder of asset won't feel insecure about a potentially limitless interest rate that continuously rises.

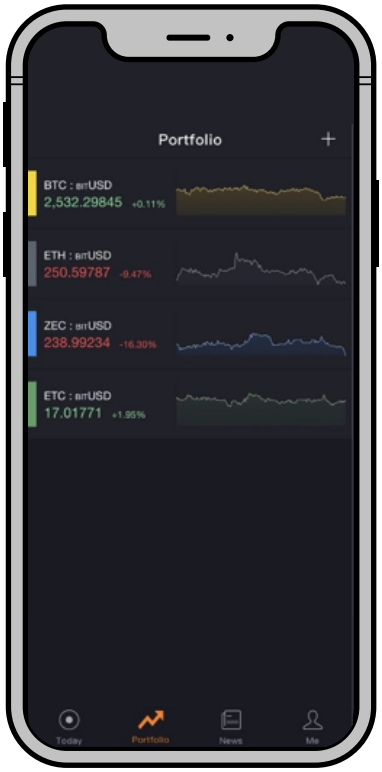
The system will then automatically calculate the interest rate based on the average premium over the past 8 hours on CYBEX and then take a snapshot of all cyb.USD holdings and issuances at the end of that 8-hour period. Once every 8 hours, the holders of cyb.USD's account will be deducted by the interest (they will have less cyb.USD) and the issuers' accounts will receive deposits of cyb.USD by the exact same amount. All deductions and deposits will be done in proportion to the snapshot of cyb.USD holdings and issuances.

3.5 Mobile User Interface

User experience is a key success factor for any exchange. We will build mobile as well as web interfaces to make sure that users are able to trade, issue new user-defined assets, receive timely information as well as potentially making payments with some of its price-stable assets (e.g., cyb.USD).







3.6 Business Development

A critical capability in running a successful exchange is the ability to convince asset holders to trade on the exchange. As aforementioned, prior to becoming the CYBEX team, we were the ICOAGE team that helped to launch 40+ successful ICOs from across the world in the Chinese market, raising over 170mn USD in total within the 6 months it was in operation.
Here's a list of the projects we've worked with, including how much was raised. Note that however the ICO ban in China effected a total and complete return of invested funds back to the investors.

Project Name	ICO Duration
InkChain	2017/8/15 20:00 - 2017/8/16 4:00
CYBEX	2017/7/26 20:00 - 2017/7/26 21:00
Starbase	2017/8/21 10:00 - 2017/8/21 13:00
Indorse	2017/8/29 - 2017/9/3
IPFS	2017/8/3 3:00 - 2017/8/5 14:00
Aeternity	2017/5/29 21:00 - 2017/6/9 21:00
Moed	2017/8/14 14:00 - 2017/8/14 15:00
Hellogold	2017/8/27 14:00 - 2017/8/28 12:00
Encryptotel	2017/4/24 - 2017/5/31
Exscudo	2017/4/25 9:56 - 2017/5/8 18:42
Adel	2017/5/1 - 2017/5/31 23:59
inchain	2017/5/10 - 2017/5/11 10:00
IEX.EC	2017/4/19 - 2017/4/20
Qtum	2017/3/16 - 2017/3/21
WeTrust	2017/3/2 - 2017/4/12
Yoyow	2017/5/21 21:00 - 2017/5/26 21:00
Bitfid	2017/5/12 16:05-2017/5/31 17:54
Storj	2017/5/19 11:00 - 2017/5/25
MobileGo	2017/4/25 10:00 -2017/5/23 19:40
Tenx	2017/6/24 21:00 - 2017/6/24 21:07
Omisego	2017/6/24 13:00 - 2017/6/25 13:00
EOS	2017/6/25 21:00 - 2017/7/2 12:04
Status	2017/6/20 23:30 - 2017/6/21 23:30
Poet	2017/8/8 20:00 - 2017/8/9 10:08
Energo	2017/7/25 18:00 - 2017/7/31 11:50
Genaro	2017/8/15 14:00 - 2017/8/15 14:10
Vechain	2017/8/12 12:00 - 2017/8/12 12:10
Delphy	2017/8/16 18:00 - 2017/8/17 14:00
Primas	2017/8/7 20:00 - 2017/8/14 19:30
Tierion	2017/7/27 21:00 - 2017/7/28 20:00
Gnosis	2017/4/24 - 2017/4/25
Aragon	2017/5/17 - 2017/5/18
Creativechain	2017/4/30 18:21 - 2017/4/30 22:00
TAAS	2017/3/27 - 2017/4/27
KyberNetwork	2017/9/15-2017/9/17

This shows that our team has a proven track record of being able to not only attract excellent project teams to work with us, but also follow through on our end by delivering value in advisory and fund-raising. We will carry through the same resources and capabilities into the operation of CYBEX.

3.7 Tokenizing Main Street Businesses

In addition to convincing current blockchain projects to trade their tokens on CYBEX, we are also actively working with more main street business sectors and helping them to tokenize their current (usually centralized) business model into a decentralized one.
Since the blockchain-enabled ecosystem is still a relatively new model with a significant technical barrier, most main street businesses remain blithely oblivious to its potential promise. Our team isn't just composed of technologists, but also seasoned business and investment professionals who are able to leverage their relationships as well as expertise to evangelize the business potential of blockchain and help businesses take the next evolutionary step.
Here are just a few examples projects in the pipeline,

- **Talent Token:** help artists to effortlessly manage their own IP and connect with their audience, minimizing the need for the middleman. We are currently working with one of the largest artist agency and music distribution firms in Japan to disrupt this field and move the over 200,000 singers, manga artists, actors etc. into a decentralized model within the CYBEX ecosystem.

- **Adspace Token:** help directly connect content creators with advertisers by cutting out the centralized platform that hoards the bulk of the profits. We are working with one of the largest ad agencies in Japan to move their entire inventory of content creators with over 134mn USD in annual ad revenues onto a decentralized exchange, where ads could be dynamically embedded into the content after transactions are completed.

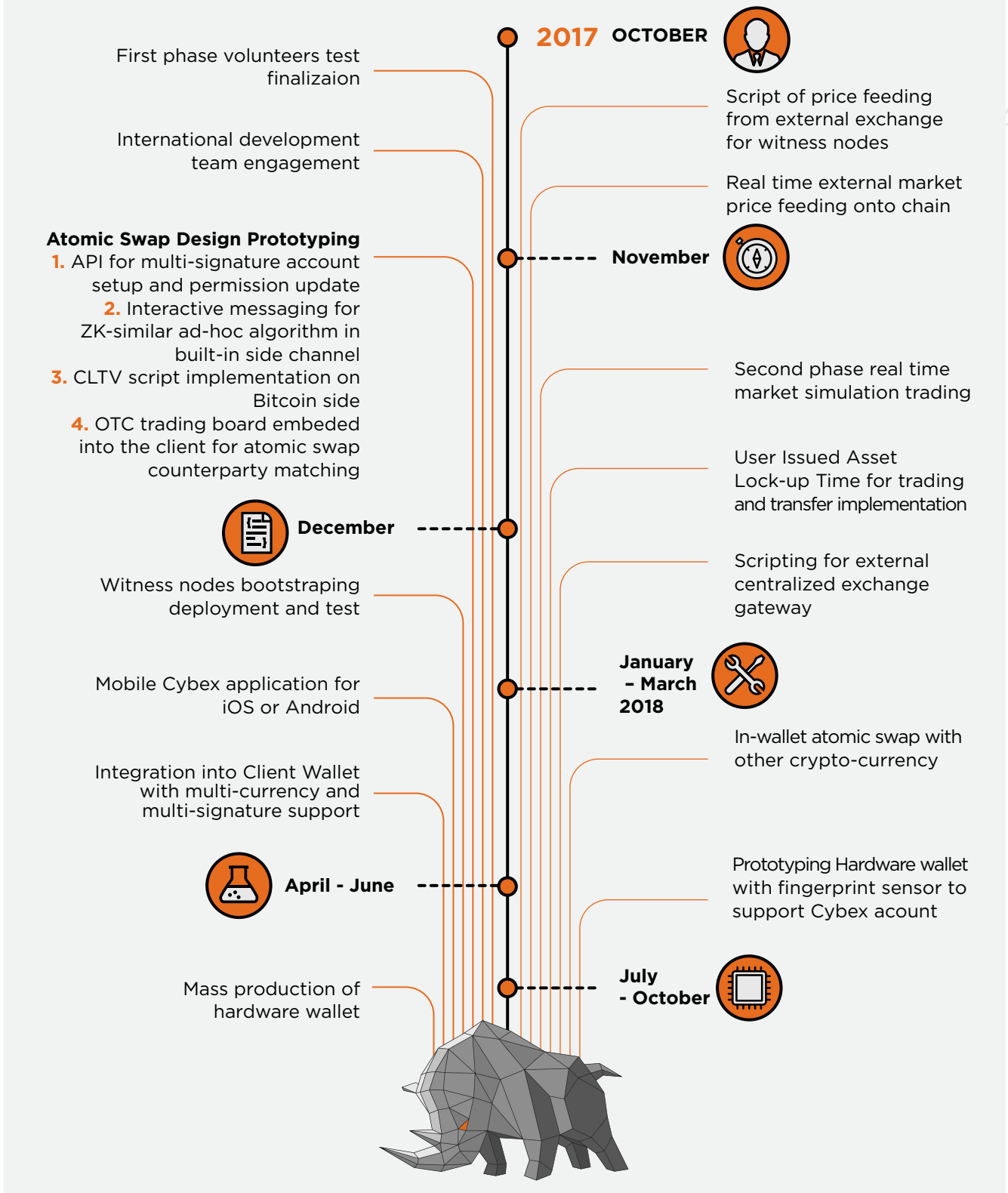
- **Kickstart Token:** we are working with the largest crowdfunding platform in Japan to help them fork a copy of CYBEX to create a crowdfunding ecosystem that' s natively compatible with CYBEX. This token has an escrow plus a voting mechanism to ensure that that the terms of the crowdfund has actually been fulfilled before releasing the funds, all without the need for a centralized platform.

We at CYBEX believe that, in order for the blockchain revolution to truly reach its potential and fulfill its decentralized promise, we must bring in more "main street" business sectors (e.g., businesses that non-technologists can easily understand) into the ecosystem, or to "tokenize" them.

If you were reading closely, you'll note that many of the partners we're working with to tokenize new business sectors are themselves centralized platforms. It takes a great deal of evangelizing on our part, as well as a significant forward-looking aptitude and appetite on the part of these platforms to divert significant resources into building a decentralized ecosystem, which would then effectively render their existing business obsolete in the process.

There are many more discussions in the pipeline and we will continue to update the community on our progress and reveal the new tokens and the players involved when all parties commit.

4. DEVELOPMENT ROADMAP



5. THE CYBEX TEAM

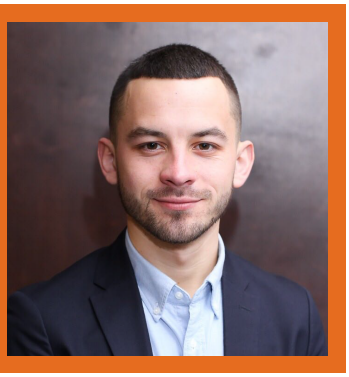
5.1 Core Team

JAMES GONG

Founder of ICOAGE (formerly the largest ICO platform in China) and ChainB (the largest Chinese blockchain media). James has been a leading blockchain and cryptocurrency evangelist and key opinion leader in China since 2012. He has helped to translate innumerable blockchain related articles and whitepapers into Chinese, as well as having authored many books on blockchain, including “The Blockchain Society”, “Blockchain – the New Economy’s Blueprint”, and “Cryptocurrency”.

MILYUTIN

Co-founder of The 8760, London, Great Britain, Marketing expert, Growth Master The 8760, London, Great Britain. Successfully helped with with closing following ICOs: Populous, AIGang, Crypto20. Altogether gathered over 80 000 000$. UX Consultant, Growth Hacker in Evoplay, Kiev, Ukraine. CEO and Product Manager of internal project Holibody in Yandex, Moscow, Russia.



JIANBO WANG

Formerly Director of ETF and China Risk trading at Deutsche Bank Asia, VP of ETF and Equity derivatives trading Citigroup Asia, VP of Equity derivatives proprietary trading at Credit Suisse. Jianbo is familiar with global financial markets and derivatives trading and has a deep understanding of ETF and other innovative financial products. He received both a B.S. and a M.S. in Electrical Engineering from Stanford University in 2003 and 2005, respectively.

STEVEN PU

Steven is a serial entrepreneur and strategy consultant, with over a decade of experience advising and implementing strategic transformations for Fortune 100 clients. He’s was an associate director at Monitor-Deloitte Consulting. He co-founded LinkSens (IoT mesh networks), EviPath (social network for physicians to exchange and discuss medical cases), and Master He (on-call massage service app). He received both a B.S. and a M.S. in Electrical Engineering from Stanford University in 2004 and 2005, respectively.

5.2 Advisors

ASH HAN

Ash Han is a Co-founder of Cosmos, a leading blockchain technology project with the vision of “Internet of Blockchains” and Finector, the biggest blockchain/DLT consulting company in South Korea that has subscribers of +300 governmental bodies, banks, financial institutions, etc. and 700+ individuals. He has been dedicated to the blockchain industry since 2012 as an angel investor, advisor, community organizer, author and public speaker with a deep understanding of the blockchain economy and technology.

DAVID LEE

Singapore Xin Yue University professor. Graduated from London School of Economics and Politics, Ph.D. in Econometrics and Mathematical Economics. As a pioneer in the REITS industry in Asia, he started his own hedge fund company. He is also an independent director of two Singapore-listed companies and serves on investment committees and boards of two charitable organizations and the Singapore Institute of Economics. Previously worked as the Vice Chairman of Alternative Asset Management Association (Singapore Branch).

BUDORIN DMYTRO

Co-founder of Hacken, a tokenized bug bounty marketplace for white hat hackers. Budorin was a senior manager at Deloitte as an auditor and the winner of Deloitte CIS Audit Challenge with his Audit BigData SAP solution. He is one of the top executives within Ukraine’s military defense industry after its large scale reform was launched by the government in 2014.

6. RISKS

Crypto-assets are a relatively new asset class with a host of risks associated with the investments thereinto. Potential investors need to be aware of these risks and make investments according to each's own level of risk tolerance.
In the subsequent sections, Cybex System Pte. Ltd., a corporation duly established under the laws of Singapore is referred hitherto as "Seller". The individual or institution making an investment into CYB is referred hitherto as "Purchaser".

a) Insufficient Information Availability
CYBEX is at the stage of development as of the date of this Whitepaper and its philosophy, consensus mechanism, algorithm, code and other technical specifications and parameters could be updated and changed frequently and constantly. While this Whitepaper has contained certain information of CYBEX, it is not complete and is subject to adjustments and updates that the Seller might make from time to time for certain purposes. The Seller is not in a position, nor obliged, to keep the Purchaser closely posted on every detail of CYBEX development (including its progress and expected milestones no matter whether rescheduled or not) and therefore will not necessarily provide the Purchaser with timely and full access to all the information relating to CYBEX that may emerge from time to time. The insufficiency of information disclosure is inevitable and reasonable.

b) Regulatory Measures
Crypto-tokens are being, or may be, overseen by the regulatory authorities of various jurisdictions. The Seller may receive queries, notices, warnings, requests or rulings from one or more regulatory authorities from time to time, or may even be ordered to suspend or discontinue any action in connection with the Crowd-sale, CYBEX's development or CYB. The development, marketing, promotion or otherwise of CYBEX or the Crowd-sale may be seriously affected, hindered or terminated as a result. Furthermore, since regulatory policies could change from time to time, existing regulatory permission or tolerance on CYBEX or the Crowd-sale in any jurisdiction could be just temporary. CYB could be defined from time to time as virtual commodity, digital asset or even securities or currency in various jurisdictions and therefore could be prohibited from being traded or held in certain jurisdictions pursuant to local regulatory requirements.

c) Cryptography
Cryptography is evolving and cannot guarantee absolute security at all times. Advances in cryptography, such as code cracking, or technical advances such as the development of quantum computers, could present risks to all cryptography-based systems including CYBEX. This could result in the theft, loss, disappearance, destruction or devaluation of the CYB held by any person. To a reasonable extent, the Seller will be prepared to take proactive or remedial steps to update the protocol underlying CYBEX in response to any advances in cryptography and to incorporate additional reasonable security measures where appropriate. The future of cryptography or security innovations is unpredictable while the Seller will try its best to accommodate the continuing changes in the domains of cryptography and security.

d) Development Failure or Abortion
CYBEX is still in the process of development, rather than a finished product ready to launch. Due to the technological complexity of the CYBEX system, the Seller could be faced with unforeseeable and/or insurmountable difficulties from time to time. Accordingly, the development of CYBEX could fail or abort at any time for any cause (including insufficiency of funds). The development failure or abortion would result in non-availability of the CYB tokens.

e) Theft of Crowd-sale Proceeds
There may be attempts to steal the crowd-sale proceeds received by the Seller (including the fiat currency amount converted therefrom). Such a theft or attempted theft may impact the ability of the Seller to fund the development of CYBEX. While the Seller will adopt cutting-edge technical solutions to keep the crowd-sale proceeds safe, certain cyberthefts could be hardly unpreventable.

f) Flaws in Source Code
Nobody can guarantee the source code of CYBEX to be flaw-free. It may contain certain flaws, errors, defects and bugs, which may disable some functionality for users, expose users' information or otherwise. Such flaws, if any, would compromise the usability, stability, and/or security of CYBEX and consequently bring adverse impact on the value of CYB. Open source codes rely on transparency to promote community-sourced identification and solution of problems within the code. The Seller will work closely together with the CYBEX community to keep improving, optimizing and perfecting the source code of CYBEX onwards.

g) Unpermissioned, Decentralized and Autonomous Ledger
There are three prevailing categories of distributed ledger adopted among the contemporary blockchain projects, namely, unpermissioned ledger, consortium ledger and private ledger. CYBEX's underlying distributed ledger is an unpermissioned one, which means it is publicly accessible and useable to everyone on a permission-free basis. While CYBEX is initially developed by the Seller, it is not owned, operated or otherwise controlled by the Seller. The community of CYBEX, which is spontaneously formed and is open, decentralized and admission-free to join, is composed of users, fans, developers, CYB holders and other participants worldwide who are mostly not connected with the Seller in any manner. Such a community will be decentralized and autonomous as to the maintenance, governance and even evolution of CYBEX while the Seller will merely be an active player in the community peer to others without supreme or arbitrary authority, irrespective of its earlier efforts and contributions to the genesis of CYBEX. As a result, it is not at the mercy of the Seller how CYBEX would be governed or evolve after the Launch.

h) Update of Source Code
The source code of CYBEX is open and could be updated, amended, altered or modified from time to time by any member of the community of CYBEX. Nobody is able to foresee or guarantee the precise result of an update, amendment, alteration or modification. As a result, any update, amendment, alteration or modification could lead to an unexpected or unintended outcome that adversely affects CYBEX's operation or CYB's value.

i) Security Weakness
The blockchain of CYBEX rests on open-source software and is an unpermissioned distributed ledger. Regardless of the Seller's effort to keep the CYBEX system secure, anyone may intentionally or unintentionally introduce weaknesses or bugs into the core infrastructural elements of CYBEX which the security measures adopted by the Seller is unable to prevent or remedy. This may consequently result in the loss of CYB or any other digital tokens held by the Purchaser.

j) "Distributed Denial of Service" Attack
CYBEX is designed to be public and unpermissioned and therefore may suffer cyber-attacks of "distributed denial of service" from time to time. Such attacks will adversely affect, stagnate or paralyze the network of the CYBEX system and accordingly render the transactions thereon delayed to be recorded or included in the blocks of CYBEX's blockchain or even temporarily unable to be performed.

k) Insufficiency of Processing Power
The rapid growth of CYBEX will be accompanied by a surge of transaction numbers and demand of processing power. If the demand of processing power outgrows how much the nodes of CYBEX's blockchain network can then provide, the network of CYBEX could be destabilized and/or stagnated, and there could be fraudulent or false transactions such as "double-spending" to arise. In the worst-case scenario, the CYB held by the Purchaser could be lost, and rollback or even hard-forking of the blockchain of CYBEX could be triggered. All these aftermaths would do harm to the usability, stability and security of CYBEX and the value of CYB.

l) Unauthorized Claim of CYB tokens
Any person who gains access to the Purchaser's registered email or registered account by deciphering or cracking the Purchaser's password will be able to claim the CYB tokens in bad faith. As such, the CYB tokens may be mistakenly sent to the person whoever claims that the same through the Purchaser's registered email or registered account, which sending is not revocable or reversible. The Purchaser shall take care of the security of his/her registered email and registered account throughout by taking such actions as: (i) using a highly secure password; (ii) refraining from opening or responding to any scam emails; and (iii) keeping strictly confidential all the secret or personal information about himself/herself.

m) Private Key of CYB Wallet
The loss or destruction of a private key required to access CYB may be irreversible. CYB are controllable only by possessing both the relevant unique public and private keys through the local or online CYB wallet. The Purchaser is required to safeguard the private keys contained in his/her own CYB wallet(s). Where such private key of the Purchaser is lost, missing, divulged, destroyed or otherwise compromised, neither the Seller nor anyone else will be able to help the Purchaser access or retrieve the related CYB.

n) Forking
CYBEX is an open source project initiated by the Seller and supported by the community. Although the Seller will probably be influential in the community of CYBEX, it does not and cannot monopolize the development, marketing, operation or otherwise of CYBEX. Anybody may develop a patch or upgrade of the source code of CYBEX without prior authorization of anyone else. The acceptance of CYBEX patches or upgrades by a portion of the witnesses of the CYBEX's blockchain could result in a "fork" in that blockchain, and consequently two diverging networks will emerge and remain until the forked blockchains are merged or one of them discontinues (each of which cases could never occur). Each branch of CYBEX blockchain arising from the forking will have its own cryptographic tokens, for which there will be two kinds of CYB respectively residing in the two divergent branches with almost identical technical features and functions. The CYBEX community could accordingly split into two groups in support of the two branches respectively. Furthermore, each branch of the forked CYBEX blockchain can be further forked with unlimited times in theory. The temporary or permanent existence of forked blockchains could adversely impact the operation of CYBEX and the value of CYB and in the worst-case scenario could ruin the sustainability of the CYBEX system. While such a fork in the block-chain of CYBEX would possibly be resolved by community-led efforts to merge the two separate branches, the success is not guaranteed and could take long to achieve.

o) Inflation
Subject to the specific underlying protocol of CYBEX at the Launch, the total quantity of CYB may slightly increase over time, and could further increase as a result of the adoption of a patch or upgrade of CYBEX source code. The resulting inflation of CYB supply could lead to the drop of market price, and consequently CYB holders (including the Purchaser) could suffer economic losses. It is not guaranteed that a purchaser or holder of CYB would be compensated or made good somehow for the CYB inflation.

p) Merger with Other Blockchains
From a technological standpoint, in certain circumstances CYBEX and other blockchain projects can be merged in pursuit of synergy or for other valuable considerations. A merger like that would probably render the blockchain of CYBEX abandoned and obsolete in exchange for certain quantity of the crypto-tokens in another blockchain to be newly created that would be allocated and assigned to the pre-merger CYB holders at certain conversion rate. It is likely that the CYB holders would be under-compensated in such merger as per certain valuation models.

q) Popularity
The value of CYB hinges heavily on the popularity of the CYBEX system. CYBEX is not expected to be popular, prevalent or widely used soon after the Launch. The worst-case scenario is that CYBEX may even remain marginalized in the long run, appealing to only a minimal portion of the users. By contrast, a significant portion of CYB demand could be of speculative nature. The lack of users may result in increasing volatility of CYB market price and consequently compromise CYBEX's long-term development. The Seller will not (nor has the responsibility to) stabilize or otherwise affect CYB's market price if there is any such price.

r) Liquidity
CYB is not a currency issued by any individual, entity, central bank or national, supra-national or quasi-national organization, nor is it backed by any hard assets or other credit. The circulation and trading of CYB on the market are not what the Seller is responsible for or pursues. Trading of CYB merely depends on the consensus on its value between the relevant market participants. Nobody is obliged to redeem or purchase any CYB from any CYB holder (including the Purchaser). Nor does anyone guarantee the liquidity or market price of CYB to any extent at any time. To divest his/her CYB, a CYB holder would have to locate one or more willing buyers to purchase the same at a mutually agreed price, which attempt could be costly and time-consuming and does not necessarily bear fruit. Moreover, there could be no crypto-currency exchange or other marketplace having CYB listed thereon for trading.

s) Price Volatility
Cryptographic tokens, if traded on public markets, usually have extremely volatile prices. Fluctuations in price over short periods of time frequently occur, which price may be denominated in Bitcoin, Ether, US Dollars or any other fiat currency. Such fluctuations could result from market forces (including speculations), regulatory changes, technical innovations, availability of exchanges and other objective factors and represent changes in the balance of supply and demand. The Seller is not responsible for any secondary market trading of CYB, regardless of whether or not there are such markets for CYB. Therefore, the Seller neither is obliged to tame the price volatility of CYB nor cares about that. The risks associated with CYB trading price has to be taken by the CYB traders themselves.

t) Competition
CYBEX's underlying protocol is based on an open-source computer software such that nobody claims copyright or any other type of intellectual property right of the source code. As a result, anyone can legally copy, replicate, reproduce, engineer, modify, upgrade, improve, recode, reprogram or otherwise utilize the source code and/or underlying protocol of CYBEX to develop a competing protocol, software, system, smart contract or virtual platform or virtual machine, which is out of the Seller's control and may consequently compete with or even overshadow or overtake CYBEX. Besides, there have been and will be various competing blockchain-based platforms (such as BitShares) that compete with CYBEX. The Seller will in no case be capable of eliminating, preventing, restricting or minimizing such competing efforts that aim to contest with or overtake CYBEX.

u) Third Party Developers
CYBEX will provide application interfaces to accommodate all kinds of external application that are developed by third parties (especially the members of the CYBEX community). All such external applications can tap into or be set up on the blockchain of CYBEX subject to no censorship, restriction, control, pre-qualification or admission requirement. The Seller neither intends nor is able to act as a censor to scrutinize to any extent any applications to be developed or connected with the CYBEX system. Therefore, programs banned or restricted in certain jurisdictions, such as gambling, betting, lottery, sweepstake, pornography and otherwise, could take advantage of the permission-less-ness of the CYBEX's blockchain to develop, promote, market or operate. The regulatory authorities of certain jurisdictions could accordingly take administrative or judicial actions against the very programs or even the developers or users thereof. Any penalty, sanction, crackdown or other regulatory effort made by any governmental authority may deter existing or potential users away from using CYBEX and holding CYB, and consequently bring material adverse impact on the prospect of CYBEX.

v) Migration
CYBEX will initially have an independent underlying blockchain as its own transaction ledger. However, CYBEX may later be immigrated to one or more other distributed platforms that are more efficient, valuable or suitable to host the transactions executed on CYBEX. In case of such migration, all the then existing CYB can be converted to such new crypto-tokens as built in the post-migration CYBEX with similar or equivalent technical specifications and functions. The original blockchain of CYBEX used before the migration could therefore fade away.

w) Other Crypto-Assets
There will be various crypto-assets to be created or generated on and circulated within CYBEX. Some of such crypto-assets could be issued by specific persons, who would be under certain commitment or obligation toward the holders. Some other crypto-assets could be created by the smart contract within CYBEX. None of such crypto-assets have the same or similar functions as CYB does. Neither these crypto-assets are sold or offered by the Seller nor will the Seller be responsible for them unless the Seller specifically indicates otherwise.