



JADE  
POOL

BROCHURE

JADEPOOL.io

# BACKGROUND

Blockchain technology was introduced in 2008 with the launch of the Bitcoin currency. Since then blockchain has been in the spotlight for its unique decentralization and open source concept. With the fast development of the blockchain ecosystem, there were exchanges and wallets that got hacked and were led to huge loss of digital assets due to poor attention to security. Then regulatory policies began to pay increasing attention. According to the SEC regulation as part of the Dodd Frank Act, institutional investors that have customer assets worth more than \$150,000 are required to store the holdings with a qualified custodian. Most investment advisers are required by the SEC to keep client funds with a qualified custodian. Therefore, custodian emerged for securely storing and managing institution crypto assets.

## WHAT IS JADEPOOL

Jadepool, also known as hot wallet, is a crypto asset custody designed and developed for institutions by NBLTrust for secure deposit and withdrawal of multiple crypto assets. Jadepool system is highly secure. It must be equipped with hardware wallet. Certain percentage of the total assets can be safely separated and stored in the cold wallet depending on the client's needs. The rest are of liquidity, thus meeting the need of users to withdraw at any time. In addition, Jadepool can be connected with HSM(hardware security module), also developed by NBLTrust, to build up a complete custody system with higher security, protecting the assets of clients in all aspects. Jadepool has already supported the following crypto assets: BTC, USDT, ETH, ERC20, EOS, XRP, LTC, XLM, NEO, NEP5, VET, QTUM, ZEC, CYB.



# FEATURES

## HSM

HSM, developed by NBLTrust, is an application data security hardware customized for Jadepool. HSM is a physically secure hardware and it takes the key security role of generating and storing seed, deriving and recovering private keys, verifying requests, signing transactions and storing critical data.

## SEPARATE COLD STORAGE

As hot wallet, Jadepool must be equipped with hardware cold wallet. Certain percentage of the total assets can be safely separated and stored in the cold wallet depending on the client's needs. The rest are of liquidity, thus meeting the need of users to withdraw at any time.

## SUPPORT MULTIPLE TOKENS

Jadepool supports multiple cryptocurrencies and each of them has its own uniqueness. Jadepool is designed as a general system that supports different blockchains while maintaining high efficiency. It could be either the Jadepool team or the third party to implement if a new blockchain needs to be supported.

## PERFORMANCE

Modularization and microservice enables Jadepool to support distributed deployment, that means a server can be fully used for monitoring and processing requests for only one chain. This lowers the risk as much as improves the software efficiency.

## SUPPORT HIGH CONCURRENCY

Jadepool ensures safe, ordered and non-blocking processing of deposits and withdrawals, even under high concurrency.

## LOCAL DEPLOYMENT

With Jadepool deployed individually on site, the client takes control of all data and can customize configuration based on own needs. All components are dockerized so the whole deployment process is easy and quick.

## ADMIN MANAGEMENT

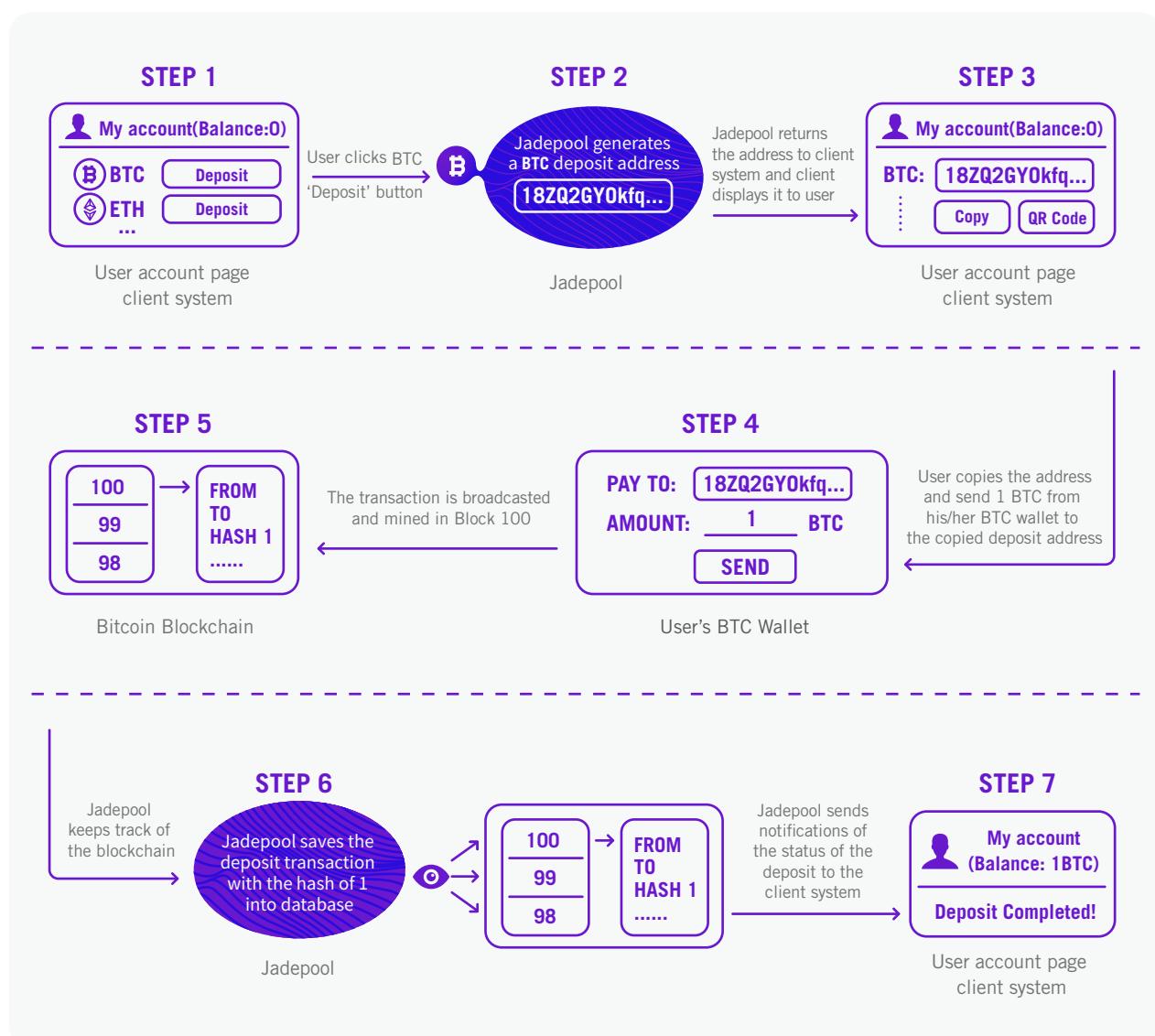
Admin, a management system designed and developed for Jadepool, is provided to client for monitoring Jadepool running status. Clients are able to view orders, check balance, audit, customize configuration, manage roles and users etc., depending on different levels of role permission.

# PRODUCT DETAILS

## DEPOSIT SERVICE

In order to deposit, user needs to request a deposit address through the client system and sends assets from his / her own wallet to the requested address. Once the transaction is broadcasted and confirmed by the blockchain, Jadepool will inform the client system of the deposit status and result.

### Deposit illustration:

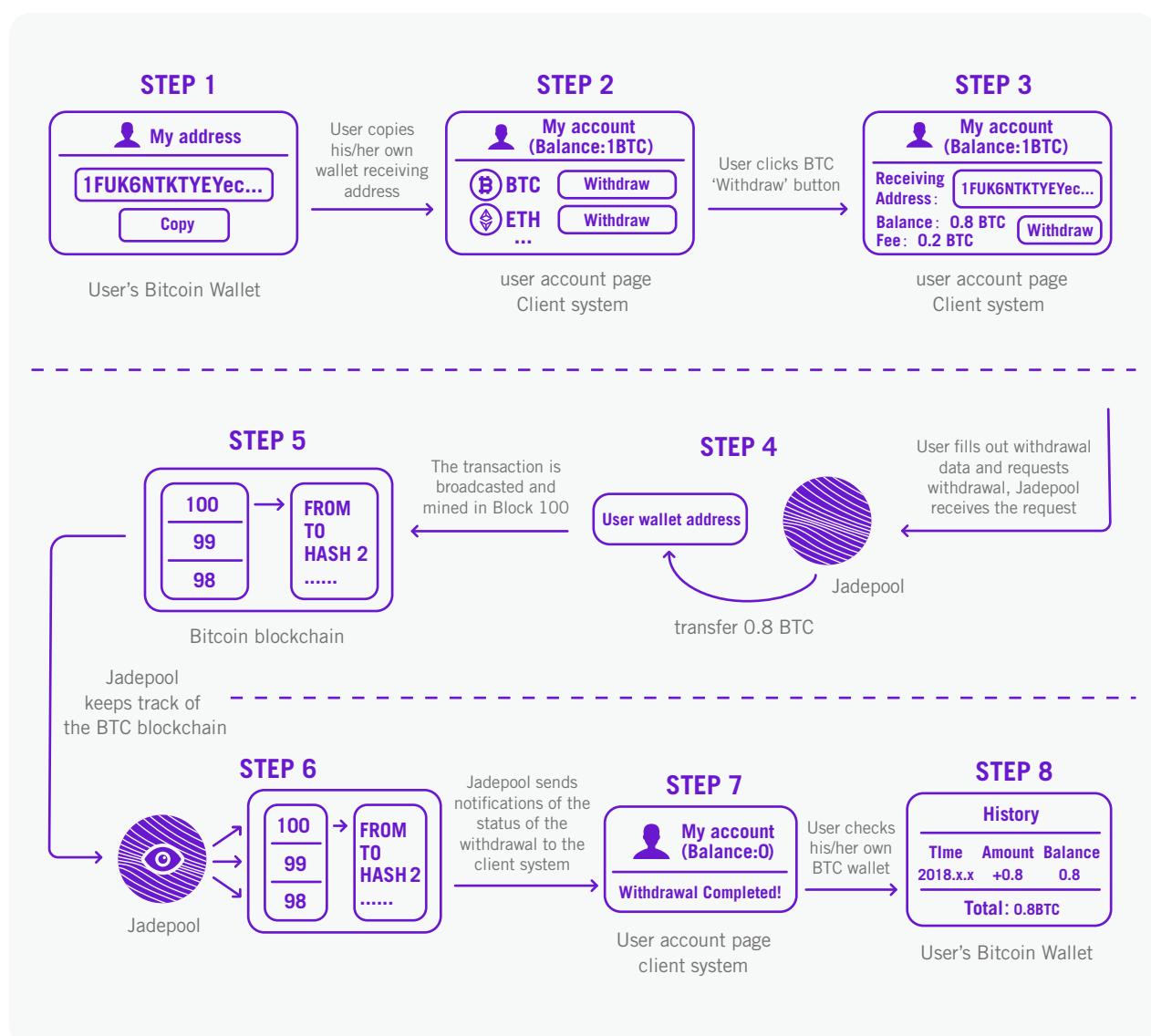


# PRODUCT DETAILS

## WITHDRAWAL SERVICE

Users can request withdrawal through the client system (The maximum withdrawal value for one user may not be the total amount of the user's deposits giving that clients can set the withdrawal fee and the minimum withdrawal value). Upon request, Jadepool will process and send out the requested withdrawal value to the user's address. Once the transaction is broadcasted and confirmed by the blockchain, Jadepool will inform the client system of the withdrawal status.

### Withdrawal illustration:

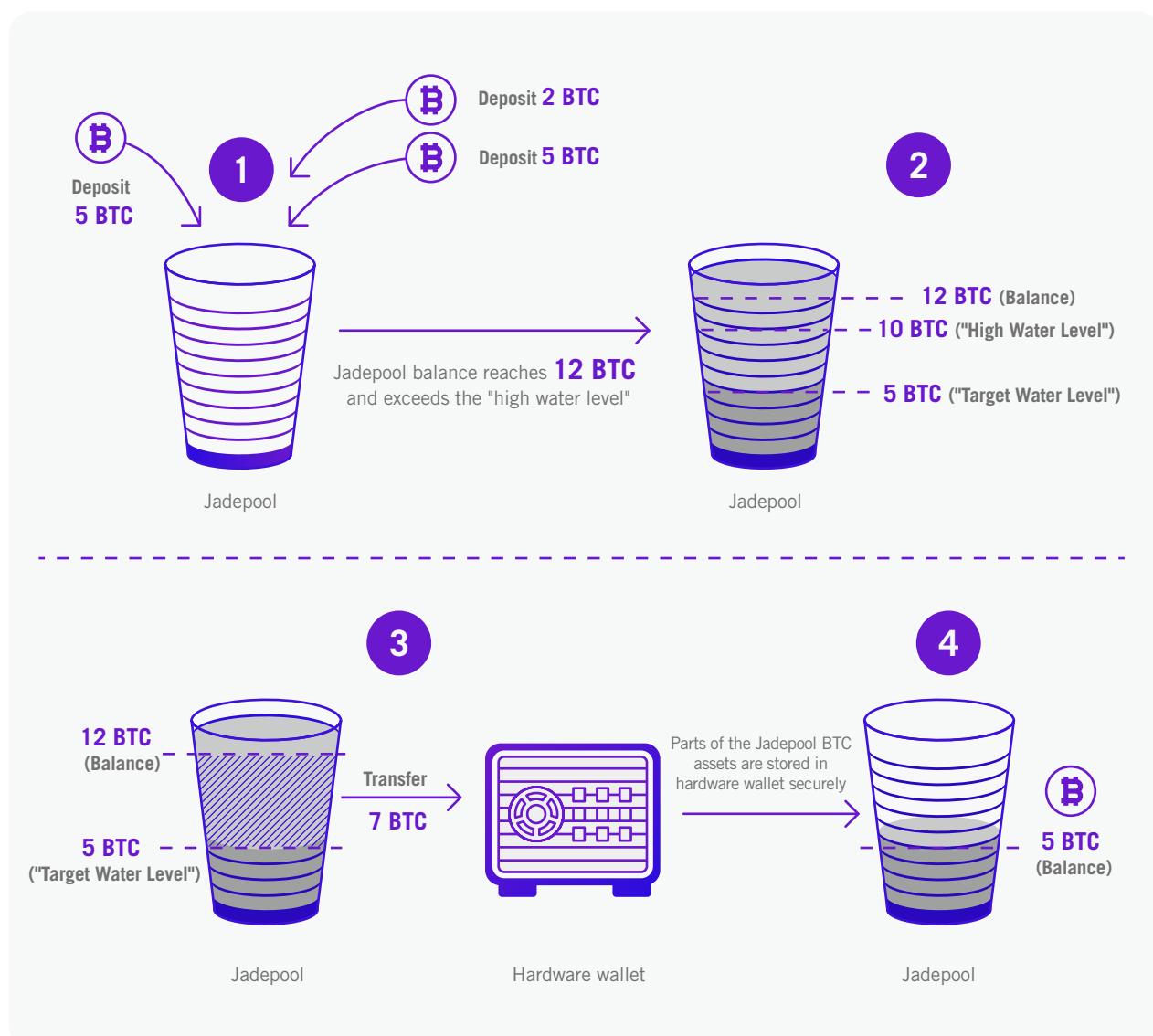


# PRODUCT DETAILS

## "HOT TO COLD" TRANSFER

In order to ensure the security of clients' assets, Jadepool must be connected with a hardware wallet to build up a complete and highly secure cryptocurrency custody system. The hardware wallet, also known as cold wallet, is a secure device which stores private keys offline and avoid hacker attacks. Clients are able to set up a "high water level" in Jadepool for each cryptocurrency. Jadepool initiates a transfer to cold wallet automatically if the total value exceeds the "high water level".

### "Hot to cold" transfer illustration:

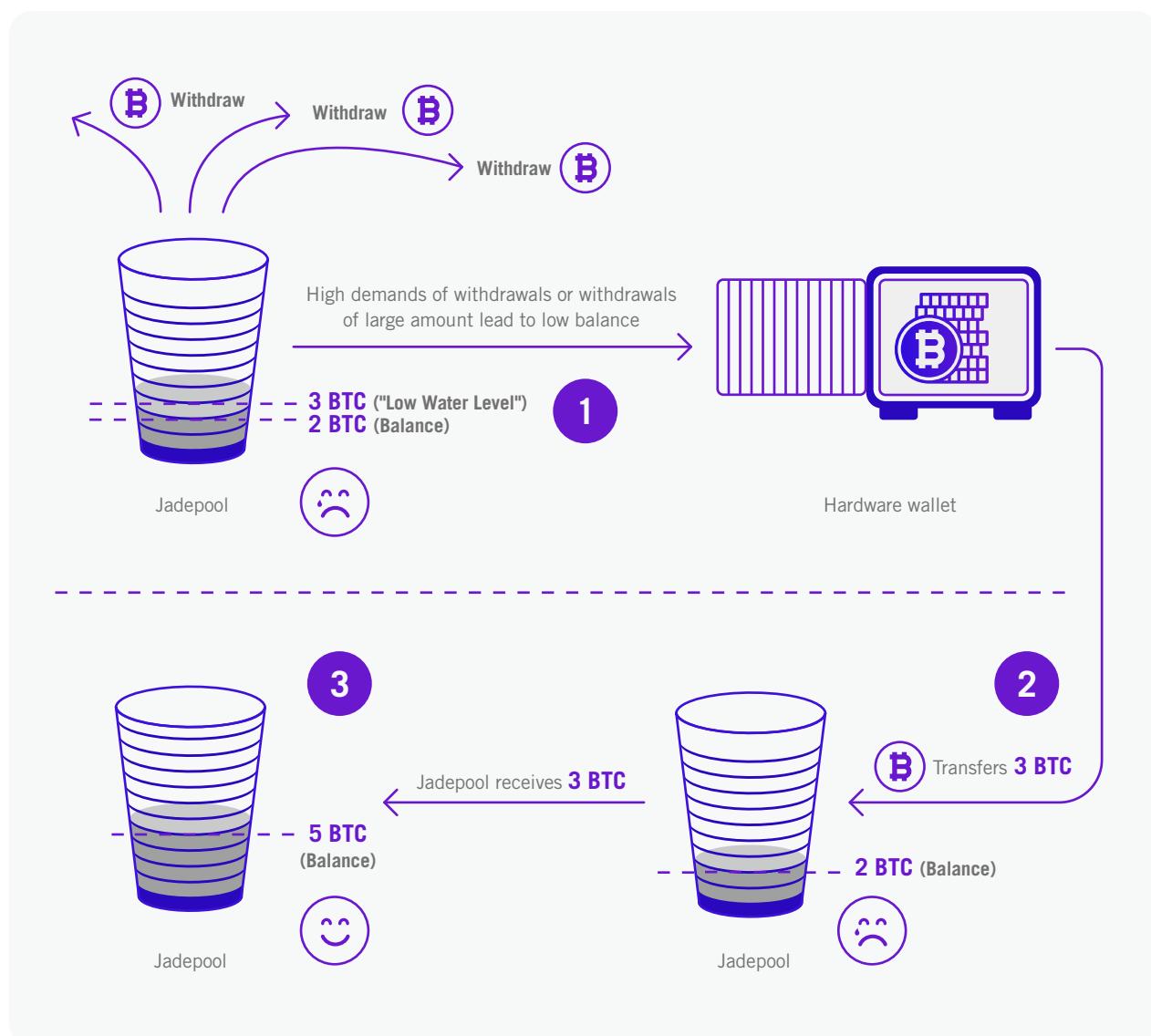


# PRODUCT DETAILS

## "COLD TO HOT" TRANSFER

High demands of withdrawals or withdrawals of large amount might result in low balance. Clients can set up a “low water level” in Jadepool for each cryptocurrency and Jadepool warns the client via email if the total value falls below the “low water level”. At this point, clients should initiate a transfer from the hardware wallet to Jadepool. This is to ensure that there are enough circulating funds to deal with withdrawal requests from users. Since hardware wallet is a offline device which is not included in the Jadepool system, the transfer mentioned above must be done manually.

### "Cold to hot" transfer illustration:



# PRODUCT DETAILS

## HSM

HSM is an application data security hardware customized for Jadepool. It is a physically secure hardware that takes the key security role of generating and storing seed, deriving and recovering private keys, verifying requests, signing transactions and storing critical data. HSM also integrates the logic of transferring assets from Jadepool to cold wallet. Furthermore, HSM uses multi-signature encrypted USB keys to achieve secure management, including seed backup, reset password, query and modify configuration etc. Every operation requires authorizations from a certain number of private key holders.

### Encryptor Illustration:

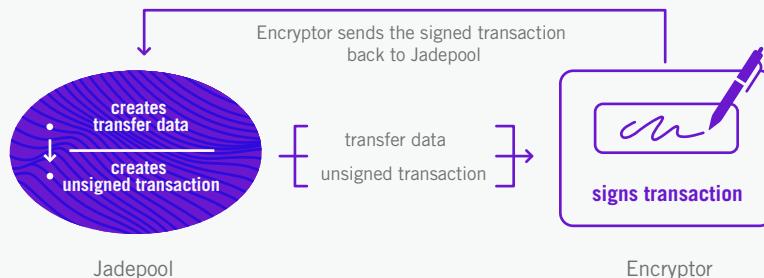
#### Withdrawal:



1. Client generates Signature 1 by signing the withdrawal data, then generates Signature 2 by signing the withdrawal data and Signature 1 together.
2. Client sends withdrawal data, Signature 1, Signature 2 to Jadepool.
3. Jadepool verifies Signature 2 and creates unsigned transaction based on the withdrawal data.

4. Jadepool sends the unsigned transaction, the original withdrawal data and Signature 1 to Encryptor.
5. Encryptor verifies Signature 1, unpacks the unsigned transaction and verifies it based on the withdrawal data, then signs the transaction if verified.
6. Encryptor sends the signed transaction back to Jadepool
7. Jadepool broadcasts the signed transaction.

#### "Hot to cold" transfer & Internal transfer:



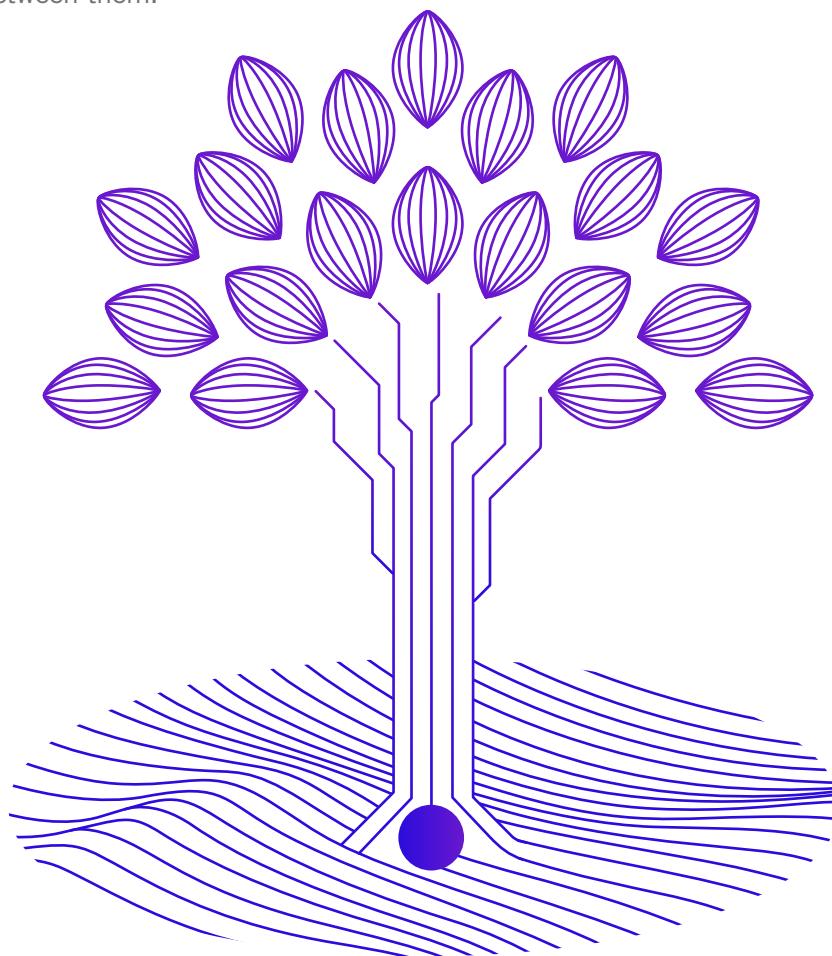
1. Jadepool generates the transfer data based on business logic, then creates the unsigned transaction.
2. Jadepool sends the transfer data and unsigned transaction to Encryptor.

3. Encryptor signs transaction.
4. Encryptor sends the signed transaction back to Jadepool
5. Jadepool broadcasts the signed transaction.

# PRODUCT DETAILS

## SEED VAULT

SEED VAULT, developed by NBLTrust, is the alternative solution for HSM. SEED VAULT can generate "seed" which can be combined with the derivative path generated by Jadepool to derive and recover private keys. SEED will be stored locally as encrypted, and the software guarantees its security by providing client the ability to set password and whitelist. SEED VAULT is also a data safe. It needs to store plenty of critical data to be used by Jadepool, such as cold wallet address. Similarly, those data are stored locally as encrypted. In comparison, HSM is much more secure than SEED VAULT. However, HSM firmware upgrade would take much longer. The client can choose between HSM and SEED VAULT or even switch between them.



In Jadepool, Each cryptocurrency's unique derivative path is combined with the seed to generate and retrieve addresses and private keys.



# PRODUCT DETAILS

## Admin Management System

Admin, a management system designed and developed for Jadepool, is provided to client for acquiring real-time operation information and monitoring Jadepool running status. Clients are able to view orders, check balance, audit, customize configuration, manage roles and users etc. depending on different levels of role permission.

The screenshot displays the Admin Management System interface. On the left is a dark sidebar with a purple header containing the "JADE POOL" logo. The sidebar includes links for Dashboard, Orders, System Info, User&Role, Operation, Audit, Settings, and Plugins. The main content area has a light gray background and features three main sections:

- Basics**: Shows system details like Jadepool Version 1.0, API Version 1.0, and Admin Version 1.0, along with environment info (Env: dev, Testnet: Yes) and a "Warnings" section indicating "none".
- Asset**: A table showing asset balances for BTC, ETH, EOS, and MT. The table columns are Asset, Total, Available, Updated, and Status. Status indicators include "Stable" (green), "Fine" (yellow), and "Lagged" (red).
- Recent Transactions**: A table listing recent transactions. The columns are ID, Asset, Type, Status, Value, and Date. Transaction details include deposit and withdrawal types, their status (Pending, Done, Failed), value, and timestamp.

# BUSINESS PARTNERS

## Cybex

Cybex is a decentralized cryptocurrency exchange. As its official business partner, Not only does Jadepool support Cybex native token CYB, it also provides Cybex custody service with high-level security and strong stability.

## HashKey Pro

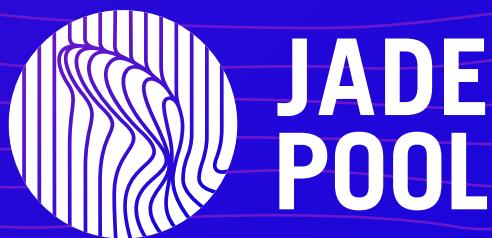
HashKey Pro is a full-featured digital asset exchange platform based in Hong Kong, providing professional and institutional users with safe and reliable trading services. HashKey Pro prioritize asset security thus has been in long-term partnership with Jadepool.

## HashQuark

HashQuark is committed to creating a safe, efficient, stable and convenient blockchain mining pool. HashQuark selects public blockchains of POS, DPOS and other consensus mechanisms, providing protection and maximizing mining efficiency with a professional team.

## ChaiNext

ChaiNext is A global leading indices and investment analysis tools provider.



[JADEPOOL.io](https://JADEPOOL.io)