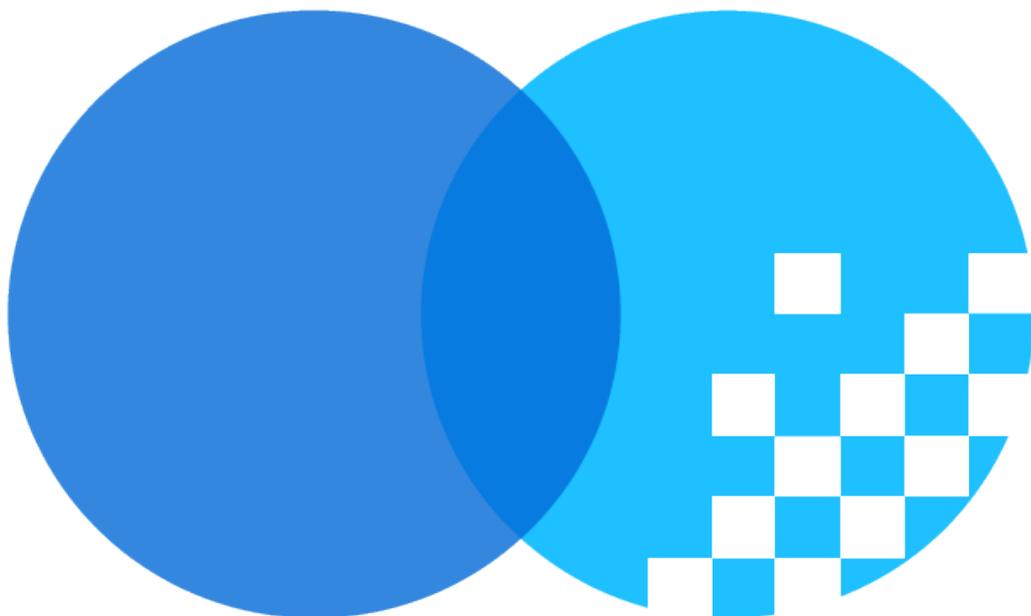


DINNGO

The Digital Currency Exchange of the Era

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Abstract

DINNGO is the first hybrid exchange that implements an in-depth integration with cold wallet service, providing a more secure and more efficient user experience.

Comparing the same period from January 2017 to January 2018, the overall single-day trading market value of digital currency rose from USD 121 million to USD 26.7 billion⁽¹⁾. The rapid 220x increase comes from a growth in the number of traders. In the beginning, only technology enthusiasts entered the market. Now, however, more people are investing due to the popularization of knowledge. The exchange with the largest market capitalization has recently reached a daily market capitalization of USD 2 billion⁽²⁾. If the transaction fee is calculated at 0.2%, then the daily income amounts to USD 4 million. As the number of traders continues to increase, trading volume growth is expected to maintain a strong momentum.

In response to the needs of the market, DINNGO serves as an emerging digital currency exchange that focuses on providing customers with the safest, fastest, and most convenient asset trading service. DINNGO is the first exchange that implements an in-depth integration with cold wallet service. Furthermore, by utilizing the technical architecture of the newest hybrid exchange, DINNGO generates fast matches through the smart transaction matching engine, enabling users to optimize asset allocation in a safe, convenient, and efficient environment.

1. Industry Pain Points

With the growing demand for digital currency trading, the exchanges on the market are no longer able to meet the needs of users. There are still many inadequacies in terms of security, user experience, customer service, compliance, and international market support. For the benefit of the public, we have provided brief descriptions of the aforementioned points.

1.1. Safety

For traditional legal tender, people are used to relying on banks for savings and loans. Although banks still have a risk of being robbed, they have deposit insurance, and federal reserves to backup and protect the assets of depositors. In the digital currency world, centralized exchanges have tried to take on the role of banks, providing centralized custody and trading for digital currency. However, this has also made them the primary target of hackers. In 2017, there were more than a dozen cases of hackers invading exchanges, causing massive asset loss. Each case suffered a loss of at least USD 10 million (Japan's CoinCheck had a loss of at least USD 530 million in a single attack⁽⁹⁾). Yet, the recurring cyber thefts have not resulted in universal laws that ensure the rights of users, greatly undermining the public's confidence in centralized exchanges.

1.2. User Experience

Major exchanges often have difficulty balancing both security and user experience. Centralized exchanges employ a structure similar to that of traditional banks, corresponding to the public's long-standing trading habits, easily providing users with a better experience. Although the centralized storage of user assets makes them more vulnerable to hacking, the exchanges are able to match buyers and sellers in their own systems, which improve transaction efficiency. On the other hand, decentralized exchanges implement the central idea of blockchain technology, enabling each user to hold their own assets, dispersing overall risk. Compared to centralized exchanges, decentralized exchanges provide greater security. However, it is not easy to teach users how to safely hold their own assets.

For example, using a cold wallet requires complicated connections and settings, which raises the user learning threshold. In addition to the lack of a centralized system for a medium, decentralized exchanges also require autonomous matching between buyers and sellers. Finding a trader that agrees with the transaction price and quantity takes a lot of time, resulting in a poor experience for a lot of users.

Furthermore, in the early periods of digital currency trading, the primary targets were technology enthusiasts and professional speculators. To meet the trading needs of those people, exchanges on the market would generally put the comprehensive market information on the same page, including areas for market prices or limit orders, minute, month, and year price charts, market depth charts, summary tables of buy and sell orders, and trading history records, overwhelming users. However, for the general public who are not familiar with digital currencies, the complicated interface actually increases the difficulty of operation, leading to high learning costs, worsening user experience.

1.3. Customer Service

In numerous popular exchanges, current customer service staff training is unable to keep up with the fast business growth, leading to poor customer service efficiency and low-quality question responses. In the DINNGO survey⁽⁴⁾ conducted in March this year, nearly 20% of users responded to the question “What can be improved in the exchange you use?” with “Better customer service”. This shows the urgency and need of upgrading customer service. From the DINNGO team's own experience, when encountering problems in trading, it is often difficult to immediately find customer service personnel to help solve the problem. The filled-in service request forms usually take a few weeks to get a preliminary reply.

In comparison, for traditional financial service providers, when customers encounter problems during depositing or withdrawing money and are unable to contact the bank's customer service and resolve the situation right away, then the incident might be in the newspapers the next day, and the bank would be questioned by the competent authorities. Although they both conduct asset

transactions, the customer service in digital currency exchanges still leaves great room for improvement.

1.4. Regulatory Compliance

Blockchain technology has only just begun to be combined with practice. Although exchanges are one of the few blockchain applications approved by everyone, they are still in the process of exploring business models, and few companies actively cooperate with the local government to carry out compliance operations.

Although it is not possible to immediately demonstrate the importance of compliance, exchanges that cooperate with the government for compliance operations provide a protection for both users and operators. When a problem arises with transactions or other controversial issues occur, exchanges that cooperate with government compliance operations can use the law to protect the rights of both parties. On the contrary, while exchanges without compliance operations might have more opportunities in “gray zones”, yet once problems arise, it will be difficult for a fair unit to legally protect their rights.

1.5. International Market Support

The development of the internet has created information without borders. Future exchanges will not have regional restrictions like regional banks. They will stand ready to serve customers from all over the world (Like mobile phones, the design serves to attract users from all over the world). Whether or not exchanges without borders are able to support the languages of various countries has become a topic of interest. A few Asian exchanges are gradually supporting languages other than that of their home countries in their support centers or website interfaces. Among them, Binance supports the most languages. However, compared to Asia, most European and American exchanges only support their native languages, limiting the choices of the public.

2. About DINNGO

DINNGO will provide strengthening and improvement in various aspects of current industry pain points. The following are brief descriptions of several major items.

2.1. Safety

The biggest safety concern of exchanges is bank-like institutions that conduct centralized custody. Thoroughly dispersing risk and enhancing safety means that the custody of assets should be returned to their respective owners. In addition, there are many kinds of tools for individuals to hold their own digital currency, such as online wallets that are stored on web pages or mobile apps, cold wallets stored in USBs, or even directly printing digital currency on paper. Offline storage is less vulnerable to hacking. Thus, DINNGO will serve as a medium to help users hold their assets, deeply integrating with cold wallets that can access digital currency offline to disperse overall user risk, and greatly enhance the security of personal digital currency.

DINNGO supports hierarchical deterministic wallets as its elliptic curve mathematics permit schemes where one can calculate the public keys without revealing the private keys. Moreover, to strengthen the security of authentication, DINNGO implements the AES256 symmetric encryption which prevents the keys leaking from the wallet, and where the user might be forced to confirm the encryption/decryption on the display thus making it impossible to be “skipped” the confirmation with different inputs and further protecting the digital asset inside the wallet.

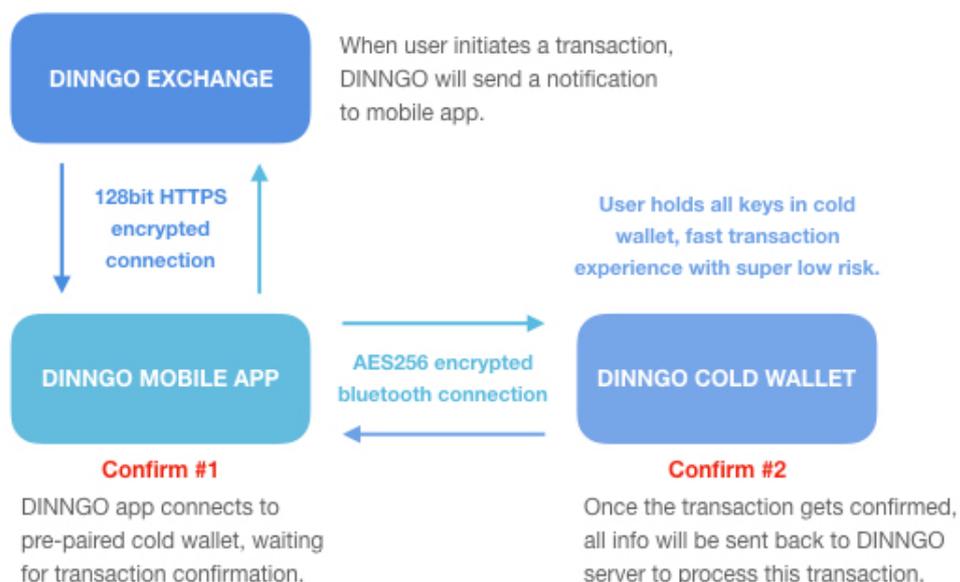
2.2. User Experience

Exchanges on the market have a common dilemma of choosing between security or user experience. However, DINNGO takes both into account, serving as a hybrid exchange that is neither centralized nor decentralization. In addition to assisting users in holding their own assets to ensure safety, DINNGO has also strengthened its three major aspects: deeply integrated with cold wallet service, smart

transaction matching engine, and a customized trading interface, providing maximum satisfaction for the needs and experiences of users.

2.2.1. Deeply Integrated Cold Wallet

Cold wallets that can be accessed offline are extremely reliable in information security. However, they also require a lot of extra steps to connect to the exchange. For example, for the most common Ledger Nano S, users must first plug in the USB cable, open the client program, and establish a connection before they can start trading. These actions can only be done on the computer (they are still unavailable on mobile devices), resulting in limited settings and efficiency in transactions. DINNGO has cooperated with cold wallet manufacturers to conduct in-depth integration of cold wallets with DINNGO mobile phone terminals. When users need to conduct a transaction, they can start the connection to buy or sell on either the computer or mobile version of the transaction interface. Then, notification messages will pop out on their mobile application, and users simply need to press a button on their cold wallet to confirm the transaction. It does not require equipment installation nor an overly complicated operation process. Each transaction is as simple as signing in to your Google Account. At the same time, it also protects the assets of customers (two-phase verification, cold wallet protection key).



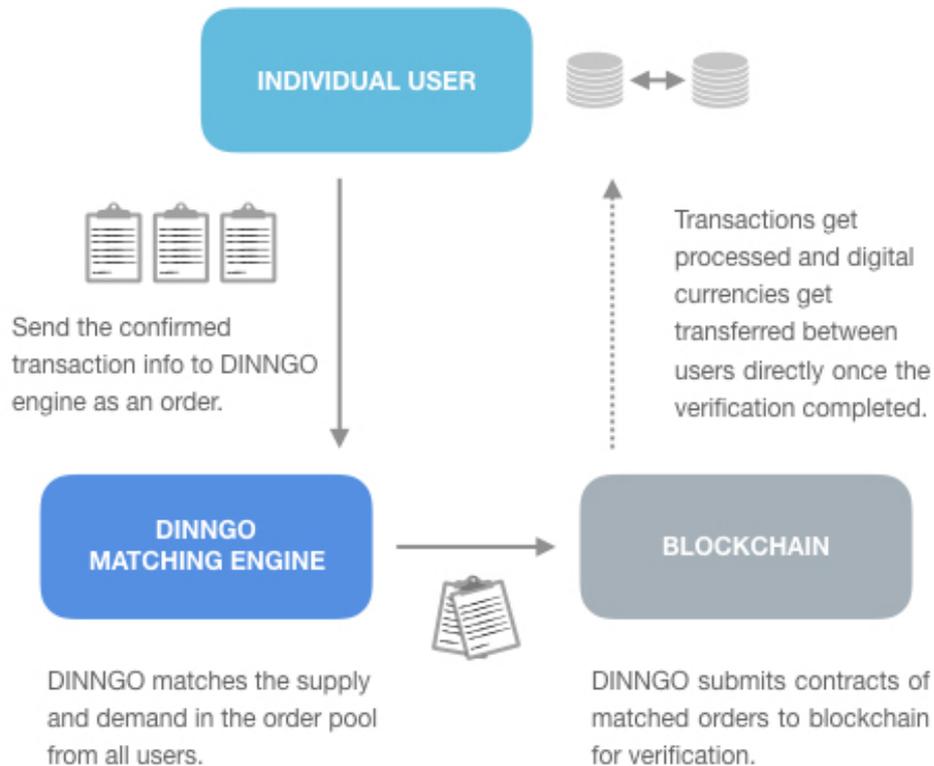
In addition, the DINNGO Merchant service is expected to launch in 2019. Cooperating with major e-commerce companies, users can use the DINNGO wallet as a payment tool at their shopping cart checkout to pay with digital currency. DINNGO has created an one-stop service that can satisfy the needs of storing assets, buying and selling investments, and general consumption.

2.2.2. Smart Transaction Matching Engine

The transaction inefficiency of decentralized exchanges is due to the fact that the customer's demand must be put on the blockchain to wait for pairing. Users can only passively wait for a counter-party whose transaction amount is comparable. If the transaction quantity is different, then only part of the transaction can be completed first. Afterward, the user must manually place another order to sell the remaining digital currency. DINNGO will use its own smart transaction matching engine, actively assisting users in off-chain smart pairing.

When an user initiates an order with cryptographical signatures, the order information but not the digital asset will be put into DINNGO matching engine and get listed on the order book of DINNGO exchange platform. Dinngo smart transaction matching engine will further actively match supply and demand in the order pools with a first-in-first-serve base and only match an order with the price lower or equal to an user pre-defined cost. On the other hand, an order taker could also manually select the preferred order from the order book on DINNGO exchange platform. Though at the stage the smart pairing is off-chain, every movement will be disclosed on the exchange platform to ensure transparency. After a successful pairing, DINNGO will pack the smart contract with cryptographical signatures from both order maker and taker, as well as the execution keys from DINNGO admin to book the transaction on blockchain. Once the confirmations get completed for the transaction on blockchain, the system will broadcast and then the digital currencies will be exchanged accordingly. Which means that the transmitting of digital currency only happen between individual users but not DINNGO

exchange, and without the cryptographical signatures from users, or the ones from DINNGO admin, the transactions would be treated as invalid and will not be submitted to blockchain or get confirmed.



When a transaction involves cross-chains, the user experience is the same while the smart contract that DINNGO packs to blockchain will also cover the limitation of either locked account or timelock feature, depending on which protocol is involved, to lock the digital currencies on blockchain during the time confirmations on both protocols are processing, and exchange the digital currencies between individual users as previous stated once the confirmations all complete and get the verification from DINNGO admin. The design is to ensure that the underlined digital currencies are in place for the transactions and to prevent from fraud.

Switching from a passive to active medium will greatly increase transaction efficiency. At the same time, DINNGO's smart transaction matching engine can dynamically configure orders. In the case of remaining unsold digital currency, DINNGO will automatically send out second and third orders after

the first transaction is completed until the seller's assets for sale are fully sold.

2.2.3. Customized Trading Interface

To balance the needs of professional speculators and the general public that are just starting to trade digital currencies, the DINNGO trade interface will modularize various items. Thus, users can freely combine and match the information they want, avoiding unnecessary interference. Novice users can directly select the default base transaction module to quickly check current prices and trend. Professional users can choose the default advanced trading module which displays complete but clear market information on the interface, including areas for market prices or limit orders, minute, month, and year price charts, market depth charts, summary tables of buy and sell orders, and trading history records. Users who wish to hold a digital currency over a long period of time can also choose the profit and loss module, which records each historical transaction price and average cost, unifying the current profits and loss.

2.3. Customer Service Standards

DINNGO will invest more resources in customer service than its peers to ensure that all users can enjoy the highest quality service. Starting from the frontline support center, DINNGO answers the FAQ using the most straightforward words. When the frontline support center is unable to solve a problem, the system will bring in artificial intelligent chatbots to analyze problems and provide answers through dialogue with robots. If the problem is so complicated that it is unable to be solved through the above two phases, then it will enter the final human customer service phase. At this point, the system will automatically integrate the relevant information collected in the previous two phases and provide it to the customer service specialist, reducing the time for assessing the problem, thereby maximizing artificial efficiency.

Whether it is a support center, artificial intelligent chatbot, or a customer service specialist, DINNGO will invest a lot of resources to ensure the best customer service experience in the industry, allowing its customers to be as secure and at ease as if they were in a bank.

2.4. Regulatory Compliance

DINNGO will begin compliance operations on the first day of opening the exchange. DINNGO has already set its target and has begun to establish relevant regulation operations in the U.S. market. DINNGO expects to receive the New York Bitlicense and obtain operating licenses in most U.S. states by 2019 Q2. DINNGO will also cooperate with relevant units to perform AML/KYC audits to ensure the rights of both users and the exchange itself. In addition to cooperating with existing regulations, DINNGO will also actively participate in the formulation of regulations and discussion of relevant rules, assisting the government in the digital currency sector with appropriate regulations that meet daily operational needs.

At the same time, DINNGO will also actively pay attention to relevant information in other countries. The company's internal legal affairs will cooperate with external offices to integrate resources to ensure immediate compliance with national laws and regulations to protect the rights of DINNGO users in the various countries.

2.5. International Market Support

DINNGO's website interface and live customer service staff will support both Chinese and English in 2018. Furthermore, DINNGO will prepare the target language before entering a new market, so that users can use the language they are most familiar with then troubleshooting or finding information.

3. Business Model

3.1. Transaction Fees

DINNGO's main revenue source comes from transaction fees. Different rates are charged according to different transaction volumes (within thirty days). The most basic charge is 0.10% for the order maker and 0.20% for the order taker.

DINNGO expects to divide the transaction fees into eight levels according to each user's equivalent BTC transaction amount in the last 30 days. The fees are reduced in proportion as follows:

Trade Volume (Last 30 Days)	Maker	Taker
< 600 BTC	0.10%	0.20%
≥ 600 BTC	0.09%	0.19%
≥ 1,200 BTC	0.07%	0.17%
≥ 2,400 BTC	0.05%	0.15%
≥ 6,000 BTC	0.02%	0.12%
≥ 12,000 BTC	0.00%	0.09%
≥ 18,000 BTC	0.00%	0.06%
≥ 24,000 BTC	0.00%	0.02%

3.2. Transaction Fee Discount Program

Users who use DGO tokens to pay transaction fees can enjoy a 50% discount in transaction fees on that transaction.

4. DINNGO Wallet (a cold wallet deeply integrated with DINNGO exchange)

In order to provide users with the best experience, DINNGO expects to give cold wallets (DINNGO Wallet) conditionally during this ICO event.

Giving away cold wallets serves to provide the best user experience and security, as well as generate a great marketing theme: DINNGO is one of the few entities that provide physical gifts in its ICO. It is also the first exchange to conduct deep integration with cold wallets.

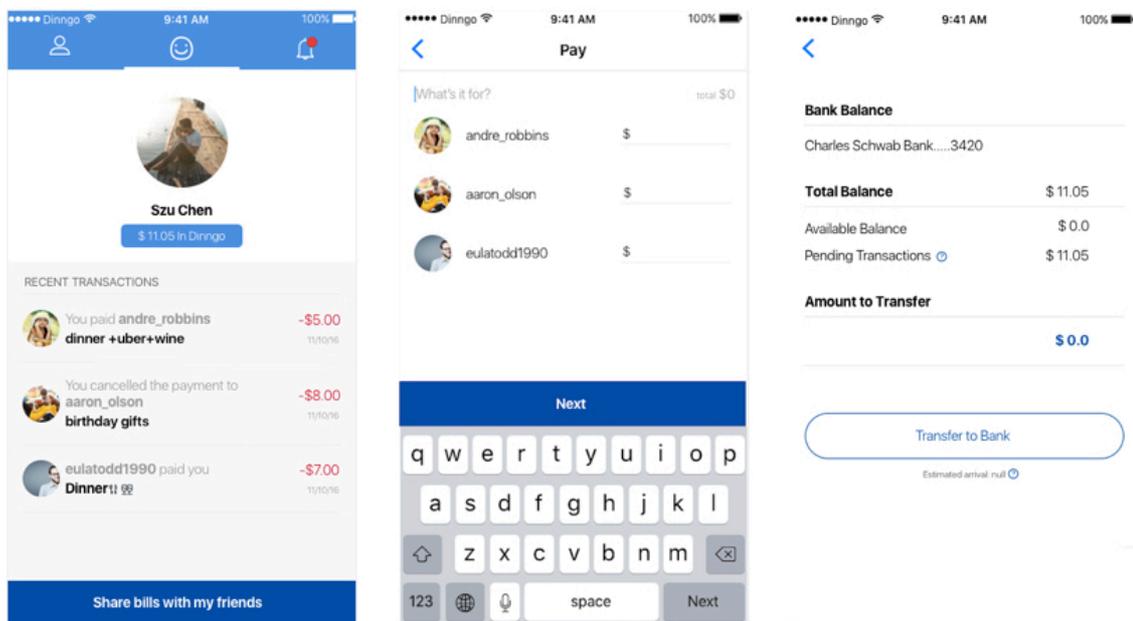
The basic plan for giving away cold wallets is as follows:

- ▶ Target: Customers who participate in the public offering.
 - ▶ Threshold: Once the DGO token public sale reaches 80% of the financing target.
 - ▶ Conditions: Customers who make a single investment of more than 5 ETH can obtain a DINNGO Wallet set, a whitelist passport + ETH wallet address limited set.
 - ▶ Shipment time: One month prior to the exchange's launch (2018/8).
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5. Who We Are

5.1. DINNGO Background

DINNGO was established in 2015 in San Francisco Bay area, used to be a mobile payment platform focusing on college students' daily expenditures. DINNGO was a payment app that turned the simple act of tagging into payments. By uploading a photo and tagging friends in-app, expenses and bills are then split amongst those tagged, allowing group activities to stay fun, minus the pain of figuring out shared expenses.



With the experience in the mobile payment industry, DINNGO is familiar with traditional banking systems and regulators, especially the struggles with the old and centralized banking structure. Hence, DINNGO transforms to a digital currency platform, aiming at handling digital asset in a smart and transparent way leveraging blockchain technology.

5.2. Core Team Member

- ▶ Hsuan-Ting Chu - Founder & CEO, serial entrepreneur, sold his company before, financial system expert, 3 years experience of US financial market.

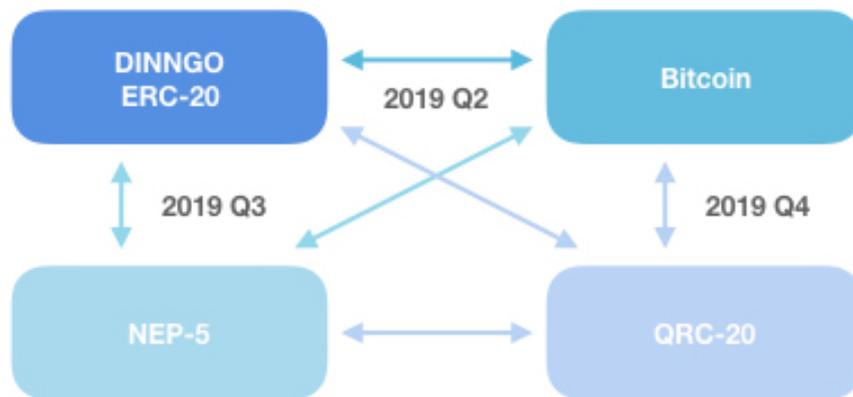
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- ▶ Andy Chou - Head of Engineering, ex-Amazon, comprehensive background in cloud computing.
 - ▶ Blake Ho - COO & Marketing, ex-Citi marketing, finance major with banking, operating expertise, and the experience of US financial market.
 - ▶ Eva Tseng - Compliance Officer, NTU Law, ex-banking compliance officer.
 - ▶ Hillary Q. - Full-stack Engineer, Stanford
 - ▶ Michelle N. - Full-stack Engineer, Stanford
 - ▶ Laticia Fan - Head of Public Relation, ex-DMG Director of New Media

5.3. Advisor

- ▶ Scofield Yeh - former Microsoft Senior Tech Manager, MagV CTO & co-founder
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6. Schedule

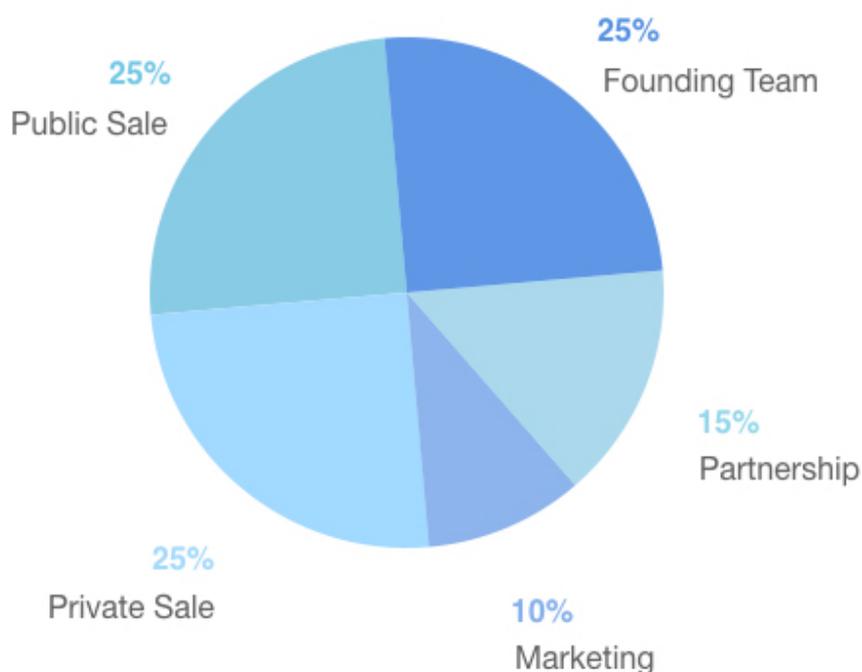
- 2018 Q3 - Launch Exchange Beta, including website and mobile application;
Run Bug Bounty Campaign;
Delivery the first shipment of DINNGO cold wallets
- 2018 Q4 - Launch Exchange Official, supporting ERC-20 transaction
Support English and Chinese
- 2019 Q1 - Open SDK to other wallet providers;
Support Japanese and Korean
- 2019 Q2 - Support BTC transactions;
Support advanced trading functions
- 2019 Q3 - Support NEO, GAS, NEP-5 transactions;
Launch DINNGO Merchant Beta
- 2019 Q4 - Support QRC-20 transactions;
Launch DINNGO Merchant Official



7. Token Sales and Capital Use

The digital currency issued by DINNGO is DINNGO Token, referred to as DGO or DINNGO. DGO has a total circulation of 200 million. There will not be increased issuance in the future (fixed amount).

7.1. Issuing Quota



Proportion	Amount	Description
25%	50 million	Held by founding team as a reward for early employees
15%	30 million	Strategic partners
10%	20 million	Marketing events
25%	50 million	Private equity - professional investment institutions
25%	50 million	Initial coin offering (ICO)

7.2. Offering Schedule

Date	Item
2018/3/27	Completed white paper draft to provide references for private equity investors
2018/4/10	Private placement begins
2018/5/6	Whitelist registration begins
2018/5/16	Private placement ends, starts public offering
2018/5/20	ICO ends

7.3. Pricing and Token Information

- ▶ Name: DGO
- ▶ Token form: ERC20
- ▶ Token unit price: 1 ETH = 2,125 DGO
- ▶ Financing target: 40,000 ETH
- ▶ Total token amount: 200,000,000
- ▶ Expected amount of token sales :100,000,000
- ▶ ICO accepted currency: BTC (private sale), ETH (public sale + private sale)
- ▶ Minimum/maximum purchase limit: 0.1 ETH/no limit

7.4. Token Appreciation Measure

After the exchange goes online, DINNGO will start to collect DGO tokens to be out of circulation. The source of funds will be 50% of the quarterly net profit. The recovered tokens will be destroyed directly until the total number reaches 100 million.

In addition to the basic usage of fee discounts, DINNGO will also count and classify the DGO tokens held by each user, dividing them into four levels according to the amount. The exchange will launch events (airdrops, new currency trading, special sweepstakes, etc.) in which different levels will be given different priorities in participation.

Reference

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 - (3) <http://money.cnn.com/2018/01/29/technology/coincheck-cryptocurrency-exchange-hack-japan/index.html>
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