

# **Binance Exchange**

www.binance.com

Whitepaper

V1.1



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### Intro

In our view, there are fundamentally two different types of exchanges: the ones that deal with fiat currency; and the ones that deal purely in crypto. It is the latter one that we will focus on. Even though they are small now, we strongly believe that pure crypto exchanges will be bigger, many times bigger, than fiat based exchanges in the near future. They will play an ever more important role in world finance and we call this new paradigm **Binance**; Binary Finance.

With your help, **Binance** will build a world-class crypto exchange, powering the future of crypto finance.

### **Problems**

Some of the current crypto exchanges suffer from a number of problems:

#### Poor technical architecture

Many exchanges are "put together quickly", by good tech people, but who have little or no experience in finance or in operating an exchange. They often choose the simplest approach to get the system up and running. While this may work well in the beginning, as traffic grows, the system will not able to handle the increased load. Exchange systems need to be engineered from the ground up with security, efficiency, speed, and scalability in mind. This often slows down the initial development, but is critical for long-term success.

Our team has decades of combined experience building and maintaining world class financial systems that shape the economy. We understand how these systems are built from the ground up.

#### • Insecure platform

There are hundreds of exchanges that went down due to being hacked<sup>1</sup>.

Binance is built to high standards, audited, and penetration tested. We have experience building financial systems to the highest security standards and strive to ensure security first.

#### Poor market liquidity

Professional traders and normal users are significantly affected by this. Having a shallow orderbook means high slippage when trading, which is very expensive for traders. Getting miners, institutional investors and large traders into a new exchange is a chicken and egg problem, and requires a team with deep industry resources.



<sup>&</sup>lt;sup>1</sup> https://bitcointalk.org/index.php?topic=576337

Binance's team have been in both the finance and crypto industry for many years. The team has worked on and operated a number of exchanges, and have accumulated a large network of partners in this space. These partners will be key in bootstrapping the exchange.

#### Poor customer service

Traders are a different breed when it comes to users. Understanding the trader mentality is vital for running a successful exchange. Money is literally on-the-line. Many exchanges service traders as if they were running a social media site. A 3-second delay in seeing your friends' status update would hardly be noticed, but on an exchange, the same would be unacceptable, resulting in a torrent of user complaints.

In additional to the technology stack, Binance is built with service in mind. Binance shares support responsibilities across the entire staff and company. When a trader has a problem, they get an answer directly from someone who knows the system and not someone reading from a script.

#### Poor internationalization and language support

Blockchains have no borders. Most exchanges focus only on one language or one country.

Our international multi-lingual team has extensive working experience in North America, Europe and Asia, and we are able to smoothly support the global market.

# Binance Exchange

## **Matching Engine**

Our matching engine is capable of sustaining 1,400,000 orders / second, making Binance one of the fastest exchanges in the market today. You can be certain, on our exchange, that your orders will never be stuck due to the matching engine being overwhelmed.

#### Feature Rollout

We will roll out the platform in roughly the following order:

- Spot trading
- Margin trading
- Futures
- Anonymous instant exchange
- Decentralized (on-chain) exchange
- and more...



#### Coins

Binance will support trading pairs in the following coins:

- BTC
- ETH
- LTC
- NEO (ANS)
- BNB (Binance Coin)

More coins will be added over time. We generally will only add coins that have strong credibility, user base, and liquidity. If you have a coin that you wish to be listed on Binance later, participating in our ICO will help.

We have no plans to support any fiat currencies such as USD, RMB, JPY, or KRX.

# **Device Coverage**

We will provide cross-platform trading clients for:

- Web-based trading client
- Android native client
- iOS native client (pending App Store review)
- Mobile HTML5 client (including WeChat H5 client)
- PC (Windows) native client
- REST API

# **Multilingual Support**

We will support English, Chinese, Japanese and Korean on all of our user interfaces. (The very initial release will be in English and Chinese only.) More languages will be added over time.



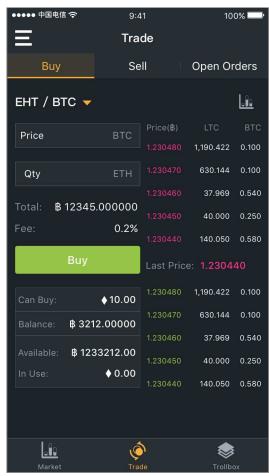
### **UI Preview**



Professional Web Trading Interface



Mobile HTML5 Market Data



iOS Trading Page





Windows PC Native Client - Multi-Interval View

### Revenue Model

Binance's revenue will come from the following sources:

Source	Description	
Exchange Fee	Binance initially will charge a 0.2% fixed fee per trade. Other variations will be subsequently introduced, including maker-taker, volumed based tiering and 0 fee promotions. We have no plan to charge above 0.2%.	
Withdrawal Fee	Binance may charge a small fee for withdrawals.	
Listing Fee	Binance will select innovative coins and other assets to be listed on the exchange, there may be a fee associated with those listings.	
Margin Fee	If you trade on margin, there may be a fee or interest on the borrowed amount.	
Other Fees	There may be other fees the platform may collect for various services such as automated algorithmic order etc.	

# Binance Coin (BNB)

We will issue our token coin, called the Binance Coin. A strict limit of 200MM BNB will be created, never to be increased. BNB will run natively on the Ethereum blockchain with ERC 20.



### Allocation

%	Amount (BNB)	Participant
50%	100,000,000	ICO
40%	80,000,000	Founding Team
10%	20,000,000	Angel investors

### **ICO**

The ICO will be done in BTC and ETH, on multiple platforms around the world.

### ICO Schedule

All times below are China Standard Time (CST), UTC+8 hours.

Date	Task
2017/06/14	Confirmed start of the Binance project
2017/06/16	Initial draft white paper completed, circulated to potential angel investors
2017/06/22	Announce Binance ICO plan, and release whitepaper to general public
2017/07/01	ICO starts (platforms will be announced soon)
2017/07/15	Binance.com release v0.1 go live, active trading begins
2017/07/21	ICO finishes, or whenever the coins are sold out

ICO will start from 3PM July 1st, investors can purchase BNB tokens in 3 phases on a first-come, first-served basis until 100,000,000 tokens are sold. As each new phase starts, the price will increase.

Investors will receive BNB tokens within 5 working days after the ICO finishes. The detailed schedule is as below:

ICO Phase	1st week	2nd week	3rd week
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CST/GMT+8	15:00 July 1th - 15:00 July 7th	15:00 July 7th - 15:00 July 14th	15:00 July 14th - 15:00 July 21th	
1ETH	2700 BNB	2500 BNB	2300 BNB	
1BTC	Based on market price			

# BNB Value & Repurchasing Plan

You can use BNB to pay for any fees on our platform, including but not limited to:

- Exchange fees
- Withdraw fees
- Listing fees
- Any other fee

When you use BNB to pay for fees, you will receive a significant discount:

	1st year	2nd year	3rd year	4th year	5th year
Discount Rate	50%	25%	12.5%	6.75%	no discount

### Repurchasing plan

Every quarter, we will use 20% of our profits to buy back BNB and destroy them, until we buy 50% of all the BNB (100MM) back. All buy-back transactions will be announced on the blockchain. We eventually will destroy 100MM BNB, leaving 100MM BNB remaining.

#### **Decentralized Exchange**

In the future, Binance will build a decentralized exchange, where BNB will be used as one of the key base assets as well as gas to be spent.

# BNB Vesting Plan for the Team

Initial release: 20% (16MM)

After 1 year: 20% (16MM)
After 2 year: 20% (16MM)
After 3 year: 20% (16MM)
After 4 year: 20% (16MM)



### **Funds Usage**

- 35% of the funds will be used to build the Binance platform and perform upgrades to the system, which includes team recruiting, training, and the development budget.
- 50% will be used for Binance branding and marketing, including continuous promotion and education of Binance and blockchain innovations in industry mediums. A sufficient budget for various advertisement activities, to help Binance become popular among investors, and to attract active users to the platform.
- 15% will be kept in reserve to cope with any emergency or unexpected situation that might come up.

## **Team**

We have a solid team led by Changpeng Zhao, with both traditional wall street finance and cryptocurrency experience. We have a track record of successful startups under our belt.

# Changpeng Zhao - CEO

(aka CZ in the crypto community) LinkedIn Profile



CZ is the founder and CEO of BijieTech, a company that provides cloud-based exchange systems to exchange operators. Since founding in Sept 2015, BijieTech now powers 30+ exchanges in Asia. In the first 12 months since founding, BijieTech closed 36.1 million RMB (\$5.3MM USD) in revenue, and will double that in its second year. BijieTech has never accepted any outside investments, being cash flow positive from day one.

As soon as the Binance ICO finishes, CZ will remain a shareholder of BijieTech, but will relinquish all of his management duties to a new CEO. CZ will focus exclusively on Binance. This applies to all BijieTech members listed in this whitepaper.

Prior to BijieTech, CZ was the co-founder and CTO of OKCoin. During his stay there, OKCoin launched their international site, and their futures trading platform. Co-ordinating with Stefan Thomas, CZ also lead the first proof-of-reserves in any China crypto exchange. Most other major exchanges in China followed soon after. In addition to managing the tech team there, he also lead the international marketing team. He is still mentor to and good friends with Zane Tackett.



Before OKCoin, CZ was the Head of Technology and the 3rd person to join the Blockchain.info team. He worked closely with Ben Reeves, Roger Ver, Anthony Antonopoulos and Nicolas Cary to grow the Blockchain.info service.

Before Blockchain.info, CZ co-founded Fusion Systems Ltd in 2005, a company that specializes in ultra-low-latency trading systems for brokers. Fusion Systems was started in Shanghai, and currently has offices in Tokyo, Hong Kong, and Los Angeles. Among other tasks, CZ was responsible closing and deploying trading systems at Credit Suisse, Goldman Sachs, Deutsche Bank, and more. CZ left Fusion System to work full time in the blockchain industry in 2013.

Before Fusion Systems, CZ was the Head of Development at Bloomberg Tradebook Futures for 4 years, in New York. There CZ managed a team that was responsible for the entire futures trading platform in Bloomberg, with annual revenues exceeding \$300 million USD.

Prior to Bloomberg, CZ's college internship and first job out of college was in Tokyo, working for a tech outsource company that was involved in developing trading systems for the Tokyo Stock Exchange. This is where his exchange experience began.

CZ was born in China and went to high school and college in Canada. CZ is fully bilingual in English and Chinese, and can speak basic Japanese.

# Roger Wang - CTO

#### LinkedIn Profile



Roger is a co-founder and the CTO. He has been working in the financial industry for 10+ years, responsible for building up technical teams, designing the high level architecture of the exchange and clearing systems, and running ops teams to ensure the security and stability of exchange systems.

Prior to BijieTech, Roger worked at Nomura Securities, the largest investment bank in Japan. He was responsible for a

global credit booking, analytics, and marking system, which supported thousands of global traders and analysts. He has also successfully implemented a smart bond matching engine, which consumes firm wide trading/order/position data, client enquiry info, 3rd party data as well as public bond data, to discover business opportunities for the firm using sophisticated custom built algorithms. It now generates over 100MM USD revenue annually for Nomura.

Before Nomura, he was a tech leader in Morgan Stanley, where he designed and built a financial TB level data warehouse, which supported a large number of users to



do real time data analysis and financial modeling. He was also a core developer for low latency algorithmic trading systems, which served the firm's largest clients like Blackstone and Wellington Fund, that delivered significant commission income for Morgan Stanley.

Roger is fully trilingual in English, Chinese and Japanese.

### James Hofbauer - Chief Architect

#### LinkedIn Profile



James is a co-founder and the Chief Architect of BijieTech. He architects and implements the core matching engine and its middleware. He also oversees client exchanges' public endpoints to ensure security and high performance.

Before BijieTech, James worked at Palantir, a Silicon Valley company that focuses on big data analysis. Palantir's large-scale high-performance systems are used for

cyber-security, anti-money laundering, fraud detection, counter-terrorism, and many other data relationship analysis purposes by both private and government entities.

Before Palantir, James worked at Fusion Systems. A notable project James worked on was a global investment bank's systems architecture redesign, focusing on reducing the number of systems, encrypting and securely handling sensitive data, and introduced a new user security system which provides authentication, authorization, and action audit logging.

James was raised and educated in America, earning a Bachelor's of Science, *Cum Laude*, in Computer Science. He is bilingual, native in English and fluent in Japanese (JLPT N2 certified), and has lived in Japan for over 10 years.

James has known CZ for 7 years and they have worked in two startups together.

# Paul Jankunas - VP of Engineering

#### LinkedIn Profile



Paul is the VP of Engineering at BijieTech, responsible for the C++ implementation of the core machine engine. He has over 15 years of experience in developing exchange systems and financial trading applications. He is constantly looking for new ways to improve the performance and scalability of the system.



Prior to BijieTech, Paul worked at SBI BITS, part of SBI Group, in Tokyo. SBI Group is a listed financial services company with interests in a wide assortment of businesses. Paul was responsible for both client and server side development for trading applications.

Before that, Paul worked at Fusions Systems in Tokyo as the Head of Development on Raptor, a market gateway with latencies under 2 microseconds, and before that for Bloomberg in New York.

Paul has known CZ for 9 years and they have worked together in 3 companies.

### Allan Yan - Product Director

#### LinkedIn Profile

Allan is a co-founder and the Product Director of BijieTech. Allan has over 10 years of experience in product design, user experience and trading. He drives the innovations in the exchange systems built by BijieTech, and pushes the product far ahead of the the competition in this ultra competitive space.

Before BijieTech, Allan worked in Orient International Holding, which is one of the biggest import & export firms in Shanghai. He was responsible for the implementation of several informationization products, including ERP and e-Fax. Meanwhile, he led a variety of game and VOD content platforms.

# Sunny Li - Operations Director

#### **LinkedIn Profile**



Sunny is a co-founder and the Operations Director of BijieTech. He has many years of management and technology consulting experience, has led 20+ exchange systems projects, and provided comprehensive consulting for strategy, operations, risk control and system development.

Prior to BijieTech, Sunny worked at Accenture as the senior consultant. He provided many Top 500 companies for strategic and IT consulting, and led a number of IOT, big data,

ERP information integration systems projects.



### **Investors & Advisors**

In no particular order.



Matthew Roszak

Bloq co-founder.
Tally Capital Founding
Partner.



Roger Ver

Angel investors in many blockchain businesses. CEO of Bitcoin.com.



Ron Cao

MD of Sky9 Capital Institutional investor in BTCChina.



Chandler Guo

Angel Investor in blockchain businesses in China.



He Yi

CMO of Yixia Technology. Previously Co-founder at OKCoin.



Yang Linke

Co-founder of BTCChina. ICOCoin Founder.



Zhao Dong

One of the largest crypto OTC brokers in China.



Da Hongfei

AntShares Founder.
Onchain CEO.



Jun Du

Co-founder of Huobi.
Angel investor.





Vincent Zhou

Founder of FinTech Blockchain Group. Active angel blockchain investor.



Lu Bin

CEO of Andui.com, a blockchain financial service company in China



Liu Sutong

Finance Channel TV Anchor. CEO of Heng Pool.



Eric Zhang

AntShares Core Member. Lead match- engine developer at Huobi.com



Leah Zhang

CMO of F2Pool.
Previously Investment
Manager of AngelCrunch.



Wang Qijun

Co-founder of Andui. Formerly Marketing at Blockchain.info



Roy Zou

CEO of Bitkio, Secretarl at Ethereum Classic Consortium (ECC)



Jackie Wang

Founding team member of Bitbank.com and BW.com and CHBTC.



Li Da

Co-founder of JiulianTech.





Founder of BitOcean.



Founder and CEO of TKing.cn. Tech lead at Morgan Stanley.



Guicheng Xiong

Co-founder of 91

Wireless, acquired by
Baidu at \$1.9 billion USD.



Previous Product Director of OKCoin. Analyst at Guotai Junan Securities.



Senior Partner at AllBright Law Offices, the biggest Law Firm in Shanghai.

Some investors choose to remain private.



## Risks

There are many risks involved in running an exchange. We understand this and have the skills, experience, and leadership to overcome them.

# Security is Paramount

Many crypto exchanges have failed due to poor security procedures. Most security breaches could have been prevented by taking simple precautions to protect critical resources. Our team has developed Binance with security as the foremost concern in their minds. We strive to ensure that we have followed all the industry best practices when it comes to securing infrastructure and data including ISO/IEC 27001:2013<sup>2</sup> and the CryptoCurrency Security Standard (CCSS)<sup>3</sup>.

## **Market Competition**

We know this will be an ultra competitive space. There are probably hundreds, if not thousands of teams wanting, planning or doing exchanges. Competition will be fierce. But in this age, this is a common risk in any decent concept/startup or mature company. The question is: given our team, track record, experience, industry resources, and product, do you believe we stand a better chance than the rest of the pack? If yes, then please join our ICO.



<sup>&</sup>lt;sup>2</sup> https://en.wikipedia.org/wiki/ISO/IEC\_27001:2013

<sup>&</sup>lt;sup>3</sup> https://cryptoconsortium.org/standards/CCSS