

Wowoo Exchange

A Truly Global Digital Assets Exchange

Project Sheet
Version 1.0

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Abstract

Almost a decade ago, Satoshi Nakamoto introduced the world to Bitcoin through his now famous Project sheet.¹ Since then, Bitcoin and other digital assets² have become increasingly relevant, and as at 20 December 2017, trading volumes of digital assets approached the daily turnover of the New York Stock Exchange (**NYSE**),³ led by Bitcoin which had the highest market capitalization among all digital assets as of 21 August 2018.⁴

As digital assets and blockchain attracted the attention of investors and the public, regulators around the world began to take note⁵ and began the process of implementing laws and regulations addressing digital assets. In view of the increasing attention and scrutiny of regulators, players in the digital assets industry must take legal compliance (including highly relevant regulations such as anti-money laundering (**AML**) laws and regulations) very seriously.

This Project sheet describes the Wowoo Exchange (**WWX**) – a truly global and regulatory compliant digital asset exchange. WWX is developing a means of making worldwide compliance feasible for token issuers and secondary market traders. Additionally, WWX will seek to address the problem of liquidity fragmentation across the globe and work towards setting a new standard for digital assets exchange security.

¹ <http://satoshinakamoto.me/whitepaper/>

² As further explained below "digital assets" in this white paper consist of cryptocurrencies, security tokens and utility tokens.

³ <http://uk.businessinsider.com/daily-cryptocurrency-volumes-vs-stock-market-volumes-2017-12>

⁴ <https://www.ccn.com/marketcap/>

⁵ <https://www.cnbc.com/2018/03/27/a-complete-guide-to-cyprocurrency-regulations-around-the-world.html>

Part 1: An Introduction to Blockchain Finance

The blockchain economy has the potential to transform the global economy.⁶ Against this backdrop, we aim to build up the Wowoo Exchange, which will provide a next-generation financial service platform that will ultimately enable ordinary users to seamlessly navigate the blockchain economy.

1.1 The Blockchain Economy

A key building block in the blockchain economy is the cryptographic token. A number of token types exist including cryptocurrencies, utility tokens, and security tokens. In terms of technology, each of these tokens are more or less identical - they are each emitted as the result of a token smart contract being deployed on a blockchain network. Token types differ drastically, however, in terms of their individual roles in the blockchain economy, as well as in their legal and regulatory implications.

A cryptocurrency is a token that is used as a means of exchange. Like other types of currencies, the primary function of cryptocurrencies is to serve as a proxy of value in the transfer of goods and services.

Unlike cryptocurrencies, utility and security tokens are generally developed by companies with the purpose of being sold in order to raise capital. Utility tokens, when sold, are assigned a specific function by their issuer. Many types of utility tokens exist. They often operate as a means of payment on particular platforms, as pre-orders for a company's product, or even as discount vouchers. Like cryptocurrencies, utility tokens are sometimes interpreted to be a kind of property. This can require great effort on the part of the user in order to stay compliant.

1.2 Regulation of Digital Tokens and Exchanges

Lawmakers in various jurisdictions have already passed, and are continuing the process of discussing and passing, various laws which apply to digital assets and digital assets exchanges.

For example, the US Security Exchange Commission in 2018 released a public statement stating that *"[i]f a platform offers trading of digital assets that are securities and operates as an 'exchange,' as defined by the federal securities laws, then the platform must register with the SEC as a national securities exchange or be exempt from registration."* In Japan, anyone wishing to operate a digital assets exchange must apply for a license with the Japanese Financial Services Authority.

Australia's financial intelligence authority, AUSTRAC, has also mandated domestic cryptocurrency exchanges to register with AUSTRAC and meet the government's AML/CTF compliance and reporting obligations. Under the terms of their compliance, crypto exchange

⁶ <https://coincentral.com/how-blockchain-financial-services-will-transform-the-global-economy/>

operators – once registered – will be required to follow know-your-customer (KYC) norms to establish a customer’s identity, monitor transactions and flag suspicious transactions by reporting them to AUSTRAC. Further, all transactions involving cash over AUD\$10,000 will also need to be reported.

Given the complex matrix of securities law, tax, data privacy and other legal issues involved, and the rapidly evolving regulatory environment, digital asset exchanges face increasingly difficult challenges to meet regulatory requirements.

1.3 The Challenges of Effective and Compliant Token Financing

Fundraising through the sale of tokens is still a very new phenomenon. As the practice becomes more and more mainstream, and as new regulations are continually being introduced, a number of key challenges will have to be addressed:

Challenge 1: There are complex requirements for token issuers which vary across the globe

Token issuers generally seek to raise capital from investors based around the world. Yet as new, and sometimes drastically varying, regulations are implemented in various jurisdictions, it becomes difficult for companies to adopt one set of practices and remain compliant in all jurisdictions.

One company’s token sale might be interpreted as an initial coin offering (**ICO**) for a utility token in one country, and as a security token offering (**STO**) requiring registration in another. In the United States, where Security Exchange Commission (**SEC**) Chairman Jay Clayton has said that he has “*yet to see an ICO that does not look like a security,*”⁷ a number of prominent ICO projects⁸ have become targets of class action lawsuits on the grounds that they were selling securities that were not properly registered as such. Terms and conditions, waivers, and other types of disclaimers against the token being a security generally do not hold up in court unless the characteristics of the token back such a claim under the relevant law. However, a token that may be a security under the laws of the United States may not be a security under the laws of another jurisdiction such as Luxembourg or Singapore.

This disparity in laws across jurisdictions has made it difficult for companies to establish policies and systems to remain compliant across all jurisdictions.

⁷ <https://www.wsj.com/articles/sec-chief-fires-warning-shot-against-coin-offerings-1510247148>

⁸ Non-comprehensive list - Dynamic ledger solutions (Tezos, 2017), Centra Tech (2017), Monkey Capital (2017), Paragon Coin (2018).

Challenge 2: Secondary market (exchange) compliance is important to ensure long-term liquidity

The successful initial issuance of tokens is, of course, essential if a project is to get off to a good start. At the same time, long-term liquidity of those tokens is also paramount if the issuing company is to achieve business success.

In the traditional economy, when a company raises funds by selling equity, liquidity is a significant factor in the long-term success of the shareholders' investment (and, in part, the business itself). In simple terms, the company and shareholders should be able to quickly sell shares in order to obtain cash. If a company were to experience economic difficulty, such as an unexpected dip in revenue, then shares could be issued to raise funds to cover operating costs, giving the company time to rethink its strategy, implement changes, and hopefully get back on the track to growth. In the traditional economy, many major financial institutions exist to ensure this kind of liquidity.

There are already financial institutions that help blockchain businesses create liquidity for their tokens. Exchanges abound that offer many pairs of popular cryptocurrencies, fiat currencies, and tokens. But with tighter regulations on the horizon, coupled with the rising popularity of security token issuance, very few exchanges find themselves up to the task of complete compliance. For example, as of June 2018, only 32% of American and European cryptocurrency exchanges audited for their application of customer due diligence (**KYC**) were found to be in compliance with regulations in the relevant jurisdictions.⁹ Such non-compliance will certainly result in crackdowns of exchanges going forward, threatening the overall liquidity of digital assets. The need exists for an exchange that is legally compliant across the major global jurisdictions.

Challenge 3: Compliant token exchanges must take a global perspective

Like companies that issue tokens, digital exchanges should be operating with the global landscape in mind. Unfortunately, this is generally not the case and liquidity is currently fragmented across the various exchange platforms in different regions of the world. In other words, no exchange has market dominance for any specific pair and prices of digital assets may vary depending on local factors. One result is that you will likely come across widely varying prices for digital assets across different exchanges in various jurisdictions. Depending on the local circumstances, a certain token may be much more expensive in one place than it is in another. One example of this was South Korea, where significant domestic interest in cryptocurrencies led to Bitcoin and Ethereum and other digital assets being sold for a significant premium (referred to as the "Kimchi premium") in the local market relative to foreign jurisdictions. Those who had the ability to access digital assets in other markets utilised the Kimchi premium to sell those assets in Korea in arbitrage trades.

⁹ <https://bitcoinist.com/cryptocurrency-exchanges-not-kyc-compliant/>

There are challenges to build a global and compliant exchange that can meet all regulatory requirements in all cryptocurrency markets while operating on a global scale sufficient to eliminate significant pricing differences in different regions around the world.

Challenge 4: Compliant exchanges need to be easy to use while keeping security a priority

Most exchanges currently operating were built more for the early-adopter in mind. They were designed not for user-friendliness or ease-of-use, but for people who already had a deep understanding of the technicalities of blockchain and finance. The investment in and trading of digital assets is becoming mainstream, and this means exchanges must also improve the interface for retail and professional users.

Further, many exchanges were developed by engineers who were seeking the simplest and fastest way to solve the initial problems of digital assets exchanges. The simple way, however, often exposes these platforms to (very public and costly) security breaches, as well as to other externalities that can ultimately have a negative effect on operational efficiency.

Cybersecurity is a key challenge for cryptocurrency exchanges. Below are a few examples of major security breaches at prominent digital assets exchanges.

Major Digital Assets Exchange Security Breaches

Hack	Amount Stolen	How it happened
Bitfinex	US\$72 million	While an ambitious multi-signature security scheme had been implemented, the system was compromised for unknown reasons. The hack was roughly one-sixth of the size of the exchange's monthly orders. ¹⁰
Coincheck	US\$532 million	Coincheck had taken the measure of storing traditional cryptocurrencies like Bitcoin and Ethereum in cold wallets. Stolen funds were all NEM, and stored in a poorly protected hot wallet. ¹¹
Bitgrail	US\$195 million	Bitgrail had faced a theft of 17 million NANO tokens due to unauthorised transactions performed from one of their wallets. ¹²

While the irreversibility of transactions is a key feature of cryptographic tokens, this irreversibility presents a key security issue within the context of the digital assets exchange or trading platform. While crooks can gain access to bank account passwords or forge signatures, and the money might be used to make an extravagant purchase, the bank is often able to reverse the transaction. Such reversal is not possible with digital assets. On a digital assets exchange, extra effort must

¹⁰ <https://www.coindesk.com/bitfinex-bitcoin-hack-know-dont-know/>
¹¹ <http://fortune.com/2018/01/31/coincheck-hack-how/>
¹² <https://www.coinstaker.com/bitgrail-hacked-17-million-nano-lost/>

be made to ensure that transactions are only being carried out by genuine traders using their own funds.

Challenge 5: A standard must be established for token listings

Currently, there is no useful universal standard for the evaluation of digital assets. The availability of secondary markets for trading does not guarantee the safety and quality of a digital token. The value of the digital asset may still fall if the token team absconds, the technology fails, or the company is outed as a scam. There needs to be universal rules for listings beyond just the ability for the company team to network and convince individual exchanges to list their tokens. Traditional security markets have high standards for the issuers of shares. Such high standards should also extend to the digital assets economy.

Challenge 6: Blockchain must be used as a force for good

In certain underdeveloped and developing regions of the world, few regulations are in place to protect the interests of the average consumer-level trader or investor. In these parts of the world, blockchain technology, through the integration of smart contracts, could present itself as the infrastructure for compliance.

Part 2: What is the Wowoo Exchange?

A Truly Global and Compliant Digital Assets Platform and Exchange

The Wowoo Exchange (**WWX**) is a Singapore-based digital assets exchange that is being built to approach compliance from global perspectives. The Wowoo Exchange shares its parent company with the Wowoo ICO Platform, which aims to build a virtual community and sustainable ecosystem.

WWX's approach to compliance is pragmatic. The platform is built to be a full-service digital assets exchange. By gradually acquiring licensing and regulatory approvals in many global jurisdictions through the form of joint ventures or franchises, and by building partnerships with exchanges that already have approvals in specific jurisdictions, WWX will ultimately give users the ability to trade all the standard pairings of digital assets in an easy and cost-effective manner.

WWX will apply a number of strategies to address the challenges of liquidity. As a primary strategy, WWX will address fragmentation of liquidity worldwide by building a network of compliant exchanges and other liquidity sources (such as market makers), and aggregating their order books, making it possible for users to make an order with just about any fiat currency or digital asset.

As an exchange platform, WWX will be unparalleled in its ease-of-use. Thanks to WWX's partnerships with financial service providers and electronic money institutions, users will have many options for making payments to the platform. The user interface will be adaptable to the needs of all kinds of traders, whether beginners or experts. In addition, multilingual support will be available via chat and email.

2.1 Universalized Compliance

WWX's KYC protocol will be the core of its fully compliant blockchain-based identity verification system. Using blockchain technology and smart contracts, we aim to build a system that will offer regulatory compliance services to users, while keeping the process of KYC/AML compliance stress-free, secure, and expeditious.

Ultimately, WWX aims to build a KYC protocol that will not just be a speedy gateway to access the exchange platform, but also used to access various investment platforms, ICOs, and other financial products and services in applicable jurisdictions. Similarly, WWX will introduce a comprehensive due diligence process for all listed digital assets.

Perhaps the most innovative aspect of WWX's KYC protocol will be how it will make regulatory compliance a more efficient and cost-effective process. With the help of external consultants and lawyers from the relevant jurisdictions, WWX aims to provide a "Global KYC platform" which will provide a secure, one-stop KYC process based on best practices in AML/KYC, while adhering to data privacy laws in different countries.

2.2 A Truly Global Exchange

By forming partnerships with exchanges that have already been licensed in other jurisdictions, WWX aims to address the liquidity fragmentation problem across different markets. By connecting the order books of the members of this extensive global network, wider liquidity will be achieved. With additional partnerships with other kinds of liquidity providers, such as market makers, one single, worldwide order book, under the Wowoo brand, can be established.

WWX aims to establish itself as a compliant worldwide exchange. WWX has engaged law firms to conduct research on the legal requirements in various major jurisdictions of the world, starting in Singapore, then moving on to the United Kingdom, Thailand, Malaysia, and other Asian and European countries. WWX is exploring obtaining licenses in these other countries, including the possibility of setting up a platform to offer security tokens.

A major part of the business' expansion, and of the expansion of the worldwide orderbook, will be in making franchise agreements with companies who want to operate exchange businesses in these places but have no applicable expertise or experience.

An important part of exchange compliance is ensuring that all digital assets listed are issued by companies that are themselves committed to transparent and compliant practices. To this end, WWX aims to set up an assessment framework for all listed digital assets. The listing process will be split into two courses of review, where the following criteria will be considered by the WWX board: features of the digital asset blockchain and platform, use cases for the digital asset, market value and security.

2.3 Cutting Edge Digital Asset Trading

As described above, on the backend, WWX aims to introduce a consistent approach to conduct compliance to enhance liquidity for digital asset issuers and investors alike. On the front end, WWX will present itself as users' top choice for streamlined, user-friendly, and efficient digital assets trading.

The digital assets trading platform will include the following features:

- **Full customizability based on the trader's skill level:**

Safeguards, tutorials, and other kinds of support will be available to beginners. Advanced users will be able to adjust settings to meet their needs and make the user experience convenient according to their particular trading preferences.

- **Support for a wide range of digital assets:**

The WWX exchange is projected to support the trading of a great number of popular digital assets, many of which originate from the Wowoo Platform. See Table 1 below for an initial projection of supported tokens.

Table 1: Projected digital assets support

BTC	LFX
NEO	OTO
ETH	AEN
WWB	Four Nine (F9G)
WWX	OISEE Token
NEP5 tokens	FANBETTING Token
ERC20 tokens	

- **Email and live chat support will be built into the user interface:**

Particularly during KYC onboarding, new users can be guided through the process step-by-step.

- **Flexible payment and payout options:**

WWX will form partnerships with compliant payment platforms located in all jurisdictions in which WWX and its network operate. Ultimately, we aim to provide as many crypto-fiat or crypto-crypto pairings on the platform as permitted by regulations.

- **Built-in wallet:**

The WWX wallet will be available for iOS and Android. Users will also have the option of using the Wowoo Platform wallet.

- **Integration with the Wowoo Platform:**

Users will be able to quickly access and invest in any Wowoo project.

Part 3: WWX Revenue Model

3.1 Revenue Model

Like other exchanges, WWX will generate revenue by charging various fees. These fees may include:¹⁸

Fee	Description
Exchange Fee	This kind of fee is imposed on all trades that are carried out on the exchange.
Withdrawal Fee	This fee could be imposed on all withdrawals from the platform.
Listing Fee	A fee may be imposed on digital assets issuers that seek listing on WWX.
Margin Fee	This fee will be charged when users trade on a margin.

3.2 The Future of WWX

The following features will not be included at the launch of the WWX, but they are the features that will be designed and developed going forward. WWX’s plans are dynamic and subject to change but the improvement of KYC and the introduction of smart contracts to developing markets as a means of ensuring legal compliance are just a few of the plans that are on the horizon.

1. Implementation of World-Wide Smart Contracts

By implementing global smart contracts, WWX will be able to automatically connect and ensure the adherence to all pertinent KYC and other legal regulations anywhere in the world.

2. Application of Global Standards in Countries with Underdeveloped Legal Infrastructure through Smart Contracts

Underdeveloped nations often have more volatile economies and regulatory structures, which greatly increases the risk of doing business. Via the application of global standards through smart contracts, we intend to provide a stronger avenue for investment in developing countries via the application of global standards through smart contracts.

¹⁸ Fees are subject to change at any time. Other forms of revenue generation may be implemented.

3. Expansion into new Financial Markets via Local Accelerators

Just as investors shy away from investing in developing countries due to fear of an uncertain regulatory environment, businesses in such countries are often precluded from expanding into foreign financial markets for the same reason. WWX intends to help these kinds of businesses enter more established financial markets via the digital assets exchange.

Part 4: The WWX Token

4.1 The Features of the Token

- Discount token: By paying for platform fees using the WWX Token, Token holders will enjoy a significant discount when paying for trading fees using the WWX Token. The WWX Token will function as a discount token over the course of five years after the initial distribution of the token, with the discount decreasing with each passing year.

Year	1st year	2nd year	3rd year	4th year	5th year
Discount	50%	25%	12.5%	6.75%	0%

- WWX Token holders will receive priority response from WWX customer support agents.
- In proportion to the number of tokens held, WWX Token holders will be able to vote on certain digital assets to be listed, so long as they meet certain basic criteria of the platform.
- WWX Token holders will also have voting rights regarding which projects to introduce to the Wowoo Platform.

4.2 Token Specification

Token Name	WWX
Number of Tokens to be Issued	2,385,399,570.98 WWX
Particulars	NEP-5 (NEO based token)

Part 5: The Company

5.1 Wowoo Platform

WWX was created by the minds behind the Wowoo Platform. After a successful ICO for Wowoo, the main team behind Wowoo decided to try to advance and create other blockchain projects to add value to the Wowoo ecosystem.

Wowoo Platform is a Singapore-based virtual service platform which is currently being developed, where participants will be able to gift crypto-assets and Wowoo Tokens to other users who provide services or content, as a show of their gratitude or a vote of confidence.

On the Wowoo Platform, a Content Provider, who is known as a Wower will play a part in offering meaningful, valuable content to the Wowoo Platform. The content can be provided with or without any form of gratitude or compensation. On the other hand, the Content Recipient as mentioned before is the Wowiee and this is the end-user of content on the Wowoo Platform.

The content may be in form of a service, product or anything that adds value to users of the Wowoo Platform. The Wowiee may or may not be required to provide compensation by way of Wowoo Tokens to the Wower. The peer-to-peer (**P2P**) interaction between the Wower and Wowiee can be with or without Wowoo Token compensation. Wowoo system administrates the generation of Wowoo Tokens and controls multiple functions of Wowoo Platform, including related products and its users.

The Wowoo Wallet will also be developed for its users to casually and securely manage variety of tokens inside their smartphones. Using Wowoo Wallet, users will be able to store and manage over 100 types of cryptocurrencies and tokens, including Bitcoin, Ethereum, BitcoinCash, etc., without entrusting any third parties for its care within their mobile devices.

WWX will act as the primary listing exchange for WWX Tokens, as well as for tokens that are based upon the Wowoo infrastructures. This is a symbiotic relationship that will help the Wowoo Platform grow and provide a larger market for its customers as well as provide an already-existing market for WWX services upon launch.

Part 6: Risk Factors

The digital assets exchange market is currently ripe with opportunities. However, as with any undertaking of value, there are also risks. Some of these risks are described below.

1. Market downturn

Digital assets exchanges are exposed to the systemic risks that there may be a collapse in the digital assets market, as many digital assets are positively correlated. While an exchange may be insulated from the sudden downfall of a single digital asset (unless that digital asset had made up a very significant part of daily volume), it is not entirely insulated from changes in industry demand for digital assets. Should there be a mass downturn in the whole digital assets market, this could affect the long-term viability of the exchange if the downturn leads to traders and investors losing interest or faith in digital assets.

A long-term decline in interest in digital assets could lead to a decrease in the total number of exchanges as traders, investors, and speculators concentrate their activities on a select few exchanges. WWX will seek to avoid this possibility by consulting experts in token economics to diversify the digital assets listed on the exchange, and by putting strict criteria in place for the listing of any new digital asset.

2. Breach in Cybersecurity

Digital assets exchanges are a major target for thieves, criminals, and hackers. As exchanges are points of *exchange*, high value assets and large sums of wealth are trading hands at any given moment. And criminals often try to strike as assets are in the process of changing hands.

For a digital assets exchange, this danger is magnified by both the fact that these assets are digital (and therefore the crime can be attempted from anywhere) and by the fact that many digital assets are designed to make it difficult for third parties to determine the owner. Thus, a criminal that succeeds in a theft might feel more secure in his gains.

There have been several high-profile exchange hacks over the last few years and WWX is taking the lessons learned from such hacks into account. We will work with technology providers to help ensure that our clients are safe and that our activities are not interrupted by malicious third parties.

3. Sudden Regulatory Change

Blockchain and digital assets are rapidly developing and even changing the technological landscape. Such changes, including the large sums of money rapidly trading hands in this shifting landscape, may pose systemic risk. Certain governments may decide that the technology is too unstable, changing too rapidly, or just that their citizens should not have access to digital assets.

It is when governments make such decisions that significant, sweeping, and seemingly

unpredictable changes can upend the status quo. As has been seen in several East Asian countries, blockchain markets can be adversely affected by regulatory action against the industry. WWX will work to avoid such an outcome by striving to stay abreast of relevant laws and regulations and by implementing processes (such as robust, though efficient KYC processes) that are reviewed regularly.

4. Legal Action Against the Exchange

Digital assets exchanges have become targets for lawsuits. Large lawsuits can be disruptive to daily business but can also damage the reputation of a nascent exchange.

WWX will implement procedures modelled on best practices in the industry to help minimize litigation risk.

5. Payment lockout

Digital assets exchanges trade in traditional fiat currencies as well as blockchain-based digital assets. Access to fiat payment methods is crucial as it allows investors to move their digital assets into fiat and use fiat to purchase digital assets.

However, certain banks and card networks have banned the use of their infrastructure for the purchase of digital assets. As digital assets become increasingly mainstream, this risk will likely diminish over time. For the moment, however, such bans still remain a risk that should be taken into account.