



# Opengram Network

Powered by one of the largest cryptocurrency messenger with millions of users

OPENGRAM FOUNDATION LTD

<http://to.network>

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## **Abstract**

The purpose of this paper is to identify the opportunity that a new user-friendly cryptocurrency messenger network will help in building the ecosystem. The aspects explored are the overview of Opengram Network, the market background information, the introduction of Opengram Network and its native token Gram. The Foundation believes that efficient communication supports learning; so it hopes to discover how one learns about blockchain that helps to build a new future from communication of information and values. This paper will be modified from time to time in terms of wording and formats. Nonetheless, the broad vision and ideas will stay the same.

## 1. Opengram Network Overview

### 1.1 Why a blockchain enabled messenger?

As cryptocurrencies and their underlying technology, blockchain, are increasingly building traction among individuals and institutions around the world, it is an opportune time for the launch of a blockchain enabled messenger. This is intended to provide an opportunity to facilitate information exchange in a social environment to educate the general public on the benefits of blockchain and cryptocurrencies. Communication is the key to fostering the growth of the community, and blockchain enabled communication is something that will revolutionise the way people interact, in the sense that it is not only the exchange of information but also the exchange of values. It is possible to add various dimensions to the conventional way of messaging.

### 1.2 Why now?

It is noticeable that the instant messenger giants are rushing into the game. Facebook CEO Mark Zuckerberg said Facebook would be looking into cryptocurrency in 2018. An unconfirmed Telegram multi-billion dollar ICO suggested that, as reported by TechCrunch that they plan to launch its own blockchain platform and native cryptocurrency, powering payments on its chat app and beyond. Again, from the unconfirmed whitepaper “Telegram Open Network (TON)”, the idea behind it appears rather profound and ambitious. What the author aims at looks like not just an blockchain enabled messenger but rather, quoting TechCrunch, “a new third generation blockchain with superior capabilities, after Bitcoin, and later Ethereum paved the way.”

If Facebook or Telegram (or maybe even Wechat) manage to adapt their existing network into blockchain, then it would leave the rest of the world little opportunities to compete against them. The timing is crucial, and it is NOW.

### 1.3 Why the Opengram team?

The Opengram team has already built such a network, actually it is the largest one in a highly populated region. However due to the nature of internet censorship, the market generally witnesses two versions of every major mobile application type, one for use in China and

another for use in the rest of world, e.g. Wechat v.s. Facebook or Baidu v.s. Google. The Foundation believes that there are full legitimate reasons behind this, and fully respects the status quo. Nonetheless, this has also provided everyone an opportunity to come up with the idea to make a global blockchain enabled messenger to serve international users.

The Opengram team has been working as mobile application developers for decades, and has created instant messengers applications with tens of millions of users. Therefore, the way to adapt to blockchain technology, surely has its limitation because of the mobile internet legacy. However, it is also the team's experience in mobile application development that drives it to take actions as quickly as possible - speed is all that matters in mobile internet industry. So once a decision for international expansion is made, not a single day will be wasted.

## **2. Digital asset and blockchain**

### 2.1 What is a digital asset?

Digital asset, arguably, is a non-monetary asset owned or controlled by individuals or institutions. They might take a form of electronic data and may be held for sale in the ordinary course of business or in production. Spending one's money directly through an online wallet is one common way digital assets are used. This is defined as the electronic payment system. In addition, people often use network offices, online stocks, online reading or video playback services. For businesses, online coupons or mileage points are great examples of digital assets being used in businesses. Some companies also distribute their equities in the form of shares through digital means.

### 2.2 Why digitise assets?

If one avoids digitising their assets at this point of time, it is projected that in 10 years time, it would be evident that one's choice would have resulted in a failure to take hold of the massive advantages of digitisation / asset innovation is intended to provide to businesses and individuals today. If one doesn't not want to risk becoming obsolete during this period of rapid innovation, it is possible to quickly take on an alternative asset allocation pattern that



may differ greatly in nature from that others. In the alternative asset allocation patterns of the future, the most obvious opportunity may be digital assets. Within the next 10 years, one might find this new asset class to be of significant importance.

For the community, digitisation of assets is a big trend. Look at these cutting edge enterprises, BAT empire is soaring within the digital economy of the Internet. In recent years, the successes of Uber, Amazon, Airbnb, are inseparable from two defining key factors - innovations in asset circulation and innovations regarding sharing economy. The easiest way to distribute assets is undoubtedly to digitise assets. The essence of sharing economy is to share the physical assets more conveniently through the way of intelligent digitisation. Through technical means to reduce waste of resources and reduce costs. The digitisation of assets for the enterprise, it is to reduce costs and increase efficiency of deriving and executing the optimal solutions to various situations. Privacy documents are encrypted and stored by technological means. Security is projected to be far greater than in house storage of documentation. After all, advancement in cryptographic technologies makes cracking efforts materially ineffectual. In addition, digital assets also facilitate business management. When the era of digital asset fully materialises, asset management will involve tens of thousands of types of assets, involving a large number of calculations, which cannot be completed by a single party or organisation alone.

### 2.3 Why use blockchain technology to digitise assets?

The Foundation believes that technology is a means, not an end. In order to achieve a certain goal, the Foundation aims to apply the technology that provides the best solution. Blockchain is projected to be the answer of the question for below reasons:

- To trust. Through blockchain distributed systems, people's mutual trust is transferred to trust in the machine. The machine is not deceptive - it does not have feelings, ensuring impartial rationality in decision making. This greatly reduces the number of uncertainties that arise from trust issues. In some industries it can even remove the role of an intermediary. Thus, the machine is projected to provide a basis for trust and rationality in decision making purely based on issues of supply and demand.

- To find integrated solutions to complex business trades. At present, a lot of formalities need to be handled for the transfer of shares. The need to access a variety of separate service providers to facilitate and execute of trades is relatively inefficient in the modern e-commerce environment. Blockchain technology coupled with electronic contracts, have the potential to provide more efficient solutions to this matter. Digital asset owners may transfer digital assets and trade in a T+0 environment, which also includes legal protection.
- 3 highly transparent. One common concern in business relationships is information asymmetry, and some relationships between parties are not completely publicised. Application blockchain technology will be able to solve this problem. Digital assets are transparent to the public. This prevents situations where secrets are unfairly kept from the public and there is no visible trace of any problem involved. The amount of assets held can be shown if needed. Also, some shady deals may be prevented.
- Anonymous. People often "stumble" on the Internet by accident. Personal information is sold at a bargain price by some unethical companies. From time to time people receive some irrelevant sales calls in their daily lives. Fraudulent calls are also received due to loss of personal information. In a blockchain environment environment, transactions will only show a digital address. This effectively protects personal information and reduces the likelihood of it being sold publicly. Although blockchain technology is not yet complete, it shows its enormous potential in many fields and can be potentially termed as "tailor-made" technology for asset digitisation.

#### 2.4 How to integrate digital assets?

Under the new economic conditions, the issue of digital encrypted assets can reduce the high costs of circulation and distribution of traditional digital assets, enhance the convenience and transparency of economic transactions, reduce the criminal activities such as money laundering and tax evasion, and enhance the central bank's commitment to monetary supply and currency circulation control, to better support economic and social development, and help with the full realisation of inclusive finance. In the future, the establishment of a system for the circulation and distribution of digitally encrypted assets and digital currencies will

also help countries build entirely new financial infrastructures, further improve their international cross-border payment system, enhance cross-border payment and settlement efficiency, and facilitate increases in quality and efficiency throughout the global economy. Serving as a medium of exchange, accounting units, and storage value for economic growth, digital encryption, asset-based, will facilitate the interconnection of all things, promote the global Internet and solve the problem of lack of liquidity in enterprises. For commodity-focused entities, the application and development of digital encryption assets will effectively enhance their competitiveness.

The core service that the blockchain is intended to provide in the era of all-things interconnected, the data and information in the world can be labeled and their ownership unalterable as previously determined. Upon this, a rock-solid property rights system can be formed in the Internet space, The redefinition of the property rights of all things in the world can make human society fully and comprehensively interfaced with the Internet and other aspects of the digital world and will possibly lead to a secure Internet society. After the Agricultural Revolution, FinTech's innovation in registering, recording and inquiring accounts is the latest development by human beings in a 6,000 year journey to overcome the deficiency of the human brain in solving the basic questions of economics and accounting that arose with the birth of property rights system caused by the advent of human settlements and surplus production . Core points, shell money and its substitutes made of various materials with differing attributes and technical qualities, scarce gold, jotting notes, scotch sticks, anti-counterfeiting papers, and the latest innovative blockchain technology are all solutions humans have derived to fulfill the need to demonstrate ownership and facilitate transfer of rights to commodities and other property. Much like how these instruments were designed with facilitate ease of authentication and avoidance of forgery in mind, another purpose of these financial technologies is to indicate proof the of fulfillment in a contract regarding transfer of assets.

In order to further digitise assets, the blockchain and digital assets can be merged more seamlessly. The integration of cryptocurrency in the blockchain world to provide a suite of

digital money-based asset management solutions will possibly become an important step for building the future economy. Encrypting digital currency is an important application of the blockchain. As the name implies, cryptocurrency concentrates on cryptography. Cryptography provides a mechanism to build rules and bring order to the cryptocurrency system. People can not only use cryptography to prevent interference with the system, avoid confusion, but also use it to create rules for new currency units to be encoded using mathematical protocols.

The best way to integrate digital currencies is through digital currency wallets. Purse-based payments and asset management will become the mainstream of the future economic and social. More and more companies have introduced their own virtual wallet, such as Beechat, Imtoken, POIM and so on. However, many existing digital currency wallets have their own natural shortcomings. For example, off-site payments are slow, third-party decentralised applications do not have support for decentralised browsers, and are limited to traditional operators' network support. These defects have become an important obstacle to the digital currency wallets being promoted on a large scale, and have also become the key bottleneck to be solved for the implementation of blockchain technology.

## 2.5 Immediate need for social communications

According to the data from the U.S. Department of Labor, although the number of job vacancies in the United States remains at a relatively high level, due to companies being increasingly demanding in their selection of employees, many inexperienced graduates who have only theoretical knowledge have difficulty seeking employment. The job market situation is becoming increasingly less optimistic.

In recent years, the job market in the United States is constantly deteriorating with the continuous increase in the number of foreign students who have come to the United States from abroad. Although on the whole, the job hunting situation for American university graduates in 2016 is better than in previous years, the sluggish wages and the heavy student debt burden places great pressure on these new members of the workforce. Compared with

last year, there are more job vacancies in the United States this year, but the demand for job positions from university graduates has also increased . At the same time, these graduates are more motivated to work because most of them carry thousands or tens of thousands of dollars in school loans.

Research carried out by the Foundation has found in an employment research report that 75% of employers indicated that they have reached the highest level in nearly a decade in terms of the number of fresh graduates they plan to recruit this year. According to the United States Bureau of Labor Statistics, the number of vacancies is at a historical peak with nearly 5.4 million vacancies by the end of February and major vacancies in the education sector and government departments. Many companies tend to favour students who have many internships in their recruitment exercises.

With the popularisation of smart phones, Instant Messengers are gradually replacing traditional 2G SMS and voice calls in people's daily life. In developed countries and some countries with advanced mobile communications, instant messaging software such as WhatsApp, Telegram, etc. has greatly facilitated daily life and communication. However, the traditional social software can only improve the convenience of communication between individuals, and is not able to provide solutions regarding fundamental social issues such as employment. The widespread use of blockchain has provided many platforms for development of decentralised applications, potentially providing for the realisation of many decentralised solutions. However, there is a significant barrier that may impede the development and widespread use of these decentralised applications. For most laypeople who are not professionally experienced in software development, taking the time to learn how to use a new platform, a new language, or a new framework in one's line of work can be time-consuming and energy-intensive. Furthermore, this development process is not fully understood even within the technical community as blockchain technologies that are essentially different from the technologies in use today. Thus, it becomes quite difficult for the average person to devote themselves to decentralised application development.

### **3. Introduction of Opengram Network**

Opengram Network project is a set of distributed protocol based on blockchain technology. It is intended to provide solutions for various problems in decentralised digital asset management, trying to solve the employment contradiction and improve the degree of blockchain recognition in the real world.

The native digital token of Opengram Network ("Gram") is another major component of the ecosystem on the Opengram Network. Gram is a non-refundable functional utility token which will be the sole unit of exchange for all economic activity in the ecosystem on the Opengram Network and the sole basis for interacting with other digital services – it is expected to become widely used as a universal cryptocurrency for use in everyday digital life. Like other digitally encrypted currencies, Gram will be transferrable.

Gram does not in any way represent any shareholding, participation, right, title, or interest in the Foundation, its affiliates, or any other company, enterprise or undertaking, nor will Gram entitle token holders to any promise of fees, revenue, profits or investment returns, and are not intended to constitute securities in Singapore or any relevant jurisdiction. Gram may only be utilised on the Opengram Network, and ownership of Gram carries no rights, express or implied, other than the right to use Gram as a means to enable usage of and interaction with the Opengram Network. Gram is an integral and indispensable part of the Opengram Network, because in the absence of Gram, there would be no common unit of exchange to pay for costs of services rendered on the Opengram Network, thus rendering the ecosystem on the Opengram Network unsustainable.

In particular, you understand and accept that Gram:

- (a) is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Foundation or any affiliate;
- (b) does not represent or confer on the token holder any right of any form with respect to the Foundation (or any of its affiliates) or its revenues or assets, including without

limitation any right to receive future revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property), or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to the Opengram Network, the Foundation and/or its service providers;

- (c) is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment;
- (d) is not a loan to the Foundation or any of its affiliates, is not intended to represent a debt owed by the Foundation or any of its affiliates, and there is no expectation of profit; and
- (e) does not provide the token holder with any ownership or other interest in the Foundation or any of its affiliates.

The contributions in the token sale will be held by the Foundation (or its affiliate) after the token sale, and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the token sale.

To the extent a secondary market or exchange for trading Gram does develop, it would be run and operated wholly independently of the Foundation, the sale of Gram and the Opengram Network. The Foundation will not create such secondary markets nor will it act as an exchange for Gram.

### 3.1 Opengram application

Opengram Network is intended to be a next generation social network with asset management tools. Opengram Network is designed with the intent to be a model future social economy networks. Opengram Network will include a decentralised next-generation browser. Web 4.0 which is intended to allow users to freely explore unlimited decentralised worlds in applications, and empowers DAPP developers make their own decentralised worlds. Opengram Network has even greater ambitions following this – it intends to develop a safer

digital asset storage solution that uses a lightweight client node on a cryptocurrency network to make the payment environment safer; Opengram Network also provides an environment filled with potential for individual users to create value, providing tools for users and developers to build decentralised applications on the Opengram Network and be incentivised with Gram. Users would also be required to pay Gram for usage of these developed DApps on the Opengram Network. Opengram Network is intended to be designed to avoid the problems of POW, a traditional mining technology and equipment that simply provides calculation.

### 3.2 New asset storage solutions

The explosion of artificial intelligence (AI) and the Internet of Things (IoT) will lead to a dramatic increase in energy demand. Traditional energy grids will not expand rapidly to meet demand. Decentralised energy grids composed of distributed energy technologies will be a key part of the growth in energy demand and the intended goal of development is to eliminate the financial barriers to entry into the blockchain and replace the existing friction in asset investment so that people can benefit from a sustainable blockchain infrastructure regardless of socio-economic status or location. At the database level, Opengram Network intends to use BigchainDB, an extensible blockchain database that supports a wide range of industries and usage cases. Platform also uses InterPlanetary File System (IPFS), a peer-to-peer protocol that replaces HTTP.

Bitcoin blockchain is intended to be designated as a ledger for storing transactional data because it is the oldest, safest, and most trusted blockchain. Ethereum is intended to provide an intelligent contract logic engine, which is the backbone of the platform. Opengram Network is intended to develop capabilities for the transfer of ownership of Gram as a unit of exchange between users, thereby simplifying peer-to-peer commerce and providing smart trusts as a flexible tool to meet the needs of the average user. The economic rules under Opengram Network are governed by computer code that make the process cleaner, more affordable and ultimately manageable.



Opengram Network core functionality can be extended to many vertical use cases. Insurance products and background management, certification markets, general rating systems, auditing, compliance and analysis, and finally medical device management.

### 3.3 Blockchain based electronic wallet

Opengram Network's currency is intended to be revolutionary, functioning on a platform that will be natively integrated with many of the most popular messaging applications (and not yet certain). Users may utilise light wallets for the safekeeping of Gram, eliminating the need for users to download large, clunky blockchain. The main function required to enable the digital community to use cryptocurrencies is the digital wallet. The wallet to be used in connection with the Opengram Network is the "T-Wallet", which is a blockchain digital wallet which helps one manage ones accounts on the Opengram Network blockchain platform very easily and securely.

Compared to a traditional bank, set out below is a very rough comparison of functions in terms of structure:

Bank  $\Leftrightarrow$  Opengram Network

Bank Account  $\Leftrightarrow$  Opengram-Wallet

Bank card number  $\Leftrightarrow$  wallet address

Bank card password  $\Leftrightarrow$  wallet private key

However, the essential difference between the two is enormous. Banks are the result of the implementation of centralised institutions, while digital wallets are generated based on the principles of mathematics and cryptography. The latter is not subject to the control of third parties and is completely independent. T-Wallet is a "mobile digital bank" that helps one to create, import, view, backup, transfer and trade multiple wallets.

### 3.4 How to decentralise the browser "Web4.0"?

Unlike traditional distribution platforms, conceptually every single user is a communicator and recommender in a decentralised content distribution network. So one who learns of a good-looking movie or a play naturally becomes an information center, and as long as such

files are downloaded into the cellphone, one can centralise the content through various distribution tools available on the Opengram Network, quickly circulating content on to other friends, thus spreading content via parallel fission.

This explosive rapid propagation of content potentially could result in greater varieties of innovative decentralised applications emerging, and the browsers currently used by most APPs may become unable to properly support the usage of new, innovative decentralised applications. In older versions of Web browsers, there was no assistance to help one curate the websites for personally relevant information according to one's current level of understanding, proficiency and desires. For example, if a 10-year-old child wants to become a nuclear physicist when he is 20, what kind of knowledge should he be given access to at this point of time? The answers to these questions are intended to become the core function of Web 4.0 in Opengram - the problem to be solved by the knowledge distribution system, on which payment of services will be made in Gram. The existing blockchain technology follows the Turing machine model. Simply speaking, the Turing machine is a closed theoretical system of mechanisation, programming, or arithmetic, with data and operator (operator) as 2 fundamental elements. Turing machines are mathematical sciences that study and define operator laws or laws on data sets.

In the future ecosystem which will be constructed around Opengram Network, the numerous closed blockchain systems should be able to combine together to form a whole. This combined whole is expected to be a network analogous to a computer system. This computer system is no longer a Turing machine, but instead forms "Petri nets". Approximately 20 years ago, Carl Adam Petri declared that the computer system technology for implementing Petri nets is called pragmatics. Therefore, the pragmatic network is the technical basis of this network computer system.

Opengram Network intends to create web4.0 as neither a pure Internet based technology nor derived material from users. But instead it is intended to initially be a combination of Internet of things and the Internet, a new model that potentially greatly benefits the majority of Internet users. In this model, Internet of Things is not subordinate to the Internet, but is a

physical medium equivalent to Internet and a new augmented reality based environment that will change the world. Everyone in web4.0 has the power to mobilise their senses and use their imagination to rediscover the world and change the world.

### 3.5 How are the network's light client nodes encrypted?

The key obstacle to making cryptocurrency mainstream and to progress from a fiat currency based economy to a digital monetary economy is the accessibility of cryptocurrencies. Encrypting the Light Client Node of the Network We propose a decentralised application based on Opengram Network internally that provides a universal, borderless, P2P network of nodes that facilitate free exchangeability between fiat currencies and cryptocurrencies. With the above network as a base, Opengram Network's Web4.0 technology, Opengram Network will be able to support global asset management infrastructure with the potential to solve the general problem of slow transaction speed of blockchain platforms.

### 3.6 How to create a decentralised economy with decentralised job market?

The Opengram Network platform engine will leverage on economic incentives to bring other digital services and applications to the decentralised ecosystem on the Opengram Network. Previously inspired by Bitcoin's block rewards and Steemit's rewards for distribution, the Reward Engines will provide natural incentives for digital service providers to adopt Gram as an ecosystem partner. In addition to ensuring a common ethical standard and legitimacy of content and transactions, the ecosystem does not impose any unnecessary restrictions or charges on monetisation strategies. As more partners join, wallet-based services will develop payment-related services that will put digital assets in the real world. Thus establishing the transactional value and, in turn, encourage new partners to join this movement.

Opengram Network platform is intended to be a driving force in the decentralised application market. The adoption of reliable rules under the chain avoids the cumbersome process of application development - developers need only master some basic knowledge required for development to participate in decentralised application development. At the same time, the users for each DAPP on Opengram Network can put forward their ideas for further

development of DAPPs. With each idea adopted, the user will receive incentives in the form of Gram. Due to Opengram Network's intent to focus on enabling simple contract functionality and easier development requirements, more ideas will potentially emerge on the DAPP market, and users have more opportunities to receive Gram incentives and even turn part time design work into full-time jobs. Opengram Network is projected to play a significant role in alleviating the current employment disequilibrium in society.

#### **4. Opengram Network Implementation**

An APP with millions or even tens of millions of daily activities requires an initial capability to perform tens of thousands of concurrent transactions per second at the initial design stage, with a latency of milliseconds. This poses a very big challenge for the original blockchain technology. Deep modifications of the code chain of the Ethereum technology, overriding consensus algorithms (DPOS) will be required. The Foundation takes the view that technology should be shared freely. Any changes to the blockchain will be shared with the open source community, facilitating the involvement of more developers and increasing the vibrancy of the ecosystem. At the same time this will allow all users to enjoy the benefits of a technology dividend.

Data transmission optimisation: When the P2P system is huge, it will have a significant impact on the limited bandwidth resources in the world. Data transmission technology being developed is projected to greatly increase the data transmission speed between nodes and reduce the bandwidth usage. Data transfer uses two key technologies:

(1) Intelligent routing algorithm: Through intelligent routing algorithm based on AI technology, devices on Opengram Network can intelligently perceive the busy state of communication channels, and select idle and/or good quality channels for communication.

(2) High-speed and reliable data transmission protocol: A new High-speed data transmission protocol is expected to be independently designed and developed based on Opengram Network protocol. Intended features include a high communication speed even under poor network conditions. One can also reduce the retransmission rate of communication data,

saving users a lot of communication costs.

**Data storage optimisation:** Considering the limited block chain node data storage capacity, an efficient data storage system can greatly improve the use of storage space efficiency. A self-developed intelligent data storage system is to be built based on AI technology, with the intended feature of being able to intelligently senses the load of the host device. At the appropriate time automatic fragmentation, consolidation and recompression, can significantly reduce the host storage fragmentation rate, saving a lot of storage space.

**Transaction Speed Optimisation:** Ethereum Wallets with a single main chain often suffers from long synchronisation times. The native blockchain on the Opengram Network intends to cleverly solves this problem through the usage of side chains for applications. Users need only download the corresponding side chain when using related applications, which greatly reduces invalid data synchronisation. The main chain is simple and clean, and will be designed for fast synchronisation.

The general consensus is that there is a large demand by users of communications applications for an in-built economy with circulating currency. The methods to tailor such an economy for users of Opengram Network are now clear, even though today's average consumer has almost no access to the typical cryptocurrency experience.

## **5. Opengram Network Governance**

### **5.1 Opengram Network community**

The Foundation had been incorporated to build decentralised international community, oversee the development of the Opengram Network, and to ensure the security of sale proceeds of Gram. The Foundation's organisational structure will consist of the Opengram Network Community, the Board of Directors, and the Executive Committee.

The Opengram Network Community consists of Gram token holders, who will be allowed to submit proposals and vote on strategic issues concerning the Opengram Network. These results will be influential, but for the avoidance of doubt the Board of Directors should remain the ultimate decision making body for the Foundation.

The Board of Directors is the highest decision making body of the Opengram Network, being responsible for organising community meetings, overall development of the Opengram Network, and exercising management and oversight of the Executive Committee. The Board of Directors will annually determine the number of Gram held by the Foundation.

The Executive Committee reports to the Board of Directors, and is responsible for the technical development and daily operation team of Opengram Network project as well as the practical work of Opengram Network project in different aspects such as technology development, ecosystem development, operation and maintenance service and community management.

## 5.2 Risk management

Opengram Network secures user accounts and funds by means of blockchain consensus and non-tampering technologies, as well as digital signatures and end-user encrypted wallets. User transfers, red envelopes and built-in transaction platforms will provide financial-grade security through Qtum Services; data, transactions integrated into the blockchain, build a safe trading environment.

## 5.3 External Audit

The Foundation strictly abides by relevant laws and regulations and industry self-regulation to provide complete and transparent financial management. Each year, the Foundation will appoint renowned international third-party auditors to audit and evaluate the use of funds, expenses incurred etc, and publish these audit reports.

## 5.4 Information Disclosure

The Foundation will regularly disclose the progress of project development, news

information and capital usage. The Opengram Network Community will have an annual discussion on the audit reports issued by third party auditors and the annual progress of the project to develop the Opengram Network. The Executive Committee will also announce progress reports on the project according to the actual development of the project, through announcements, official website and various social networking platforms.

## 6. The team

Teamwork is a key element of the Opengram Network. The Opengram team is very strong in terms of creativity and technology. The support team behind the Opengram team is an open source organisation founded by the former team member of one of the largest cryptocurrency messenger with millions of users.

Committed to cross-border instant messaging application development and technological innovation. The company brings together ex-employees from Google, and other leading technology companies, which have worked on various different functions of APP on sale worldwide. The Opengram Network is envisaged to be an essential tool for day-to-day communication with tens of millions of users in the emerging world market.

## 7. Opengram Network Development Roadmap

Timeline of Plan

Project Launched	First Version Release	Digital Wallet Release	More Digital Asset Support	Functional Stability
→ →				
October 5 2017	January 2018	March 2018	September 20 2018	October 2018

## 8. Risks

You acknowledge and agree that there are numerous risks associated with purchasing Gram, holding Gram, and using Gram for participation in the Opengram Network.

(a) Uncertain Regulations and Enforcement Actions

The regulatory status of Gram and distributed ledger technology is unclear or unsettled in many jurisdictions. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including Gram and/or the Opengram Network. Regulatory actions could negatively impact Gram and/or the Opengram Network in various ways. The Foundation (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction.

After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, the Foundation will apply a cautious approach towards the sale of Gram. Therefore, for the crowdsale, the Foundation may constantly adjust the sale strategy in order to avoid relevant legal risks as much as possible. For the crowdsale, the Foundation is working with Tzedek Law LLC, a boutique corporate law firm in Singapore with a good reputation in the blockchain space.

(b) Loss of Talent

The development of the Opengram Network depends on the continued co-operation of the existing technical team and expert consultants, who are highly knowledgeable and experienced in their respective sectors. The loss of any member may adversely affect the Opengram Network or its future development.

(c) Failure to develop

There is the risk that the development of the Opengram Network will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or Gram, unforeseen technical difficulties, and shortage of development funds for activities.



(d) Security weaknesses

Hackers or other malicious groups or organisations may attempt to interfere with Gram and/or the Opengram Network in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, there is a risk that a third party or a member of the Foundation or its affiliates may intentionally or unintentionally introduce weaknesses into the core infrastructure of Gram and/or the Opengram Network, which could negatively affect Gram and/or the Opengram Network.

(e) Other risks

In addition to the aforementioned risks, there are other risks (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of Gram, including those that the Foundation cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, its affiliates and the Opengram team, as well as understand the overall framework and vision for the Opengram Network prior to purchasing Gram.

## References

- [1] A. Narayanan. J. Bonneau. E. Felten. A. Miller. S. Goldfeder. Bitcoin and Cryptocurrency Technology: A Comprehensive Introduction. The China Citic Press, 2016.
- [2] P. Wayner. Digital Cash: Commerce on the Net (2nded). Waltham, MA: Morgan Kaufmann, 1997.