

Portaldot White Paper



**High-performance Global block chain
Application Network Service System**

Version 1.3

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Preface

In 2013, block chain swept the world because of the overall popularity of Bitcoin. From block chain 1.0 represented by the old digital currency of Bitcoin to the public block chain platform Ether with smart contract function, block chain has entered the 2.0 era, and now block chain 3.0 era, which must be deeply integrated with the real economy. The future communization of the global block chain industry will further accelerate, including the new business model and production relationship changes brought about by the development of block chain technology, and the further refinement and improvement of block chain regulatory policies in various countries around the world will affect the investment choices of digital asset investment users in the block chain. Block chain projects supported by offline real industries and projects with application scenarios will be loved by users.

In the past two years, the domestic and foreign economic development environment, conditions, and requirements have been constantly changing. International relations events represented by trade wars have put pressure on the growth of the real economy. On the one hand, the statistics of loan growth rate and total amount have soared; but on the other hand, it is the voice of real businesses that are difficult to raise funds. At present, when banks implement the national financial support policy, due to their own financial risks and other factors, they still set relatively strict lending thresholds, resulting in the lack of collateral and greater business risks. Real businesses are not only difficult to obtain loans from banks, but also more difficult to directly raise funds through

corporate bonds, stocks, etc. The problems of financing difficulties and high financing costs for real businesses have not been fundamentally solved.

POT public chain is invested and developed by Portaldot Foundation (hereinafter referred to as POT Fund). The main business scope of the foundation is: research and development of block chain network technology and digital asset management.

Since its 18-year research and development, the Portaldot Foundation has brought together top geek technical talents from all over the world, including the well-known block chain technology development team in the Chinese mainland, to participate in the development of POT. In this process, the Foundation is also committed to the support and construction of POT ecology, supporting the development and incubation of third-party platforms including e-commerce platforms, pass-through catering, and competitive travel alliance platforms, helping the real industry to develop the digital economy.

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I. Project Background

1 Global Block Chain Industry Status

In 2018, the global block chain financing market size is growing rapidly, in which Asia-Pacific market will play an important role to drive the global market development, especially thanks to the rapid growth of China, India, and Southeast Asian countries. North America has a non-negligible market position in the past few years and is expected to remain stable in the future, especially in the U.S. Changes in the U.S. will have a significant impact on the development of global block chain financing. In the current form, the global changes are fast and unpredictable, and the future development of block chain financing industry will be full of more variables.

Europe leads global block chain industry

Driven by its own open source culture, Europe is leading the world's block chain industry in every aspect, with both individuals and corporate organizations actively participating in block chain projects. The survey shows that European block chain startups are concentrated in London, Amsterdam, Barcelona, Berlin and Cryptovalley, Switzerland.

U.S. Block chain industry lags behind

According to OBLIFEtlier VentBLIFERes, although a quarter of the world's block chain companies come from the United States, these companies are only focused on cryptocurrencies such as Bitcoin, and only a very small number of companies are involved in the application of block chain in non-currency areas. The U.S. Block chain industry has significantly lagged behind other countries in verticals that are being developed in countries such as healthcare, insurance, energy and supply chain. As the world's financial center, the performance of the United States in the field of block chain innovation can be described as a big disappointment. Some experts believe that this "lag" in the U.S. has nothing to do with the ability of companies to innovate, but is mainly limited by the regulatory system. Two well-known U.S. Block chain companies, Kraken and Coinbase, are both located in the Bay Area, but both have cryptocurrencies such as Bitcoin as their main business.

U.S. social networking giant Facebook released a white paper on its cryptocurrency project Libra on June 18, 2019, which stirred up a wave of interest. It soon sparked the attention of national regulators, and all walks of life began to hotly debate - is Libra another monetary system? Will it impact the international monetary

system? Should it be included in the central bank regulatory framework and so on.

Facebook cautioned investors in its latest quarterly report that while the company expects to launch Libra, a digital currency, in 2020, there are a number of factors that could kill it early. Facebook said it recognizes the importance of resistance from lawmakers and regulators since the project was announced in June.

Ether drives Canadian blockchain industry

Compared with the United States, the emergence of Ethereum has made Canada's block chain industry exude "youthful vitality". At present, there is a huge block chain entrepreneurial community in Canada, bringing together a large number of intermittent talents in the block chain, including Vitalik Buterin, the initiator of the Ethereum concept. In addition, two important founders of the block chain field, William Mougayar and Don Tapscott, are also from Canada. Different from the inaction of the U.S. Securities and Exchange Commission (SEC), the Canadian Securities Administrators (CSA) has recently actively launched a new Fintech "sandbox" program for block chain start-up companies and other financial technology companies to promote the development of the domestic block chain industry.

China's central bank speaks out Shenzhen becomes digital currency test bed

In January 2017, the Central Bank of China officially established the Institute of Digital Currency with the aim of studying block chain and digital currency development. Subsequently, in September 2018, the Central Bank's Digital Currency Research Institute established "Shenzhen Financial Technology Co., Ltd." in Shenzhen. According to the database of the State Intellectual Property Office, the Institute of Digital Currency of the Central Bank has applied for 71 patents, which are mainly related to digital currencies. Shenzhen has become a hotbed of digital currency development. On July 4 this year, the Shenzhen Central Branch of the People's Bank of China and the Shenzhen Taxation Bureau of the State Administration of Taxation held a ceremony to sign the Strategic Cooperation Framework Agreement and launch the business of tax filing form on the chain, exactly 10 months after the trial run of the central bank's trade and gold platform was released. At present, the Central Bank's Trade and Finance Platform has realized multi-level financing of supply chain accounts receivable, cross-border financing, supervision of international trade accounts and tax filing forms for foreign payments. Among them, 28 banks in Shenzhen, 483 outlets tax filing business on the chain is running

normally, and the volume of foreign payment business has exceeded 30 billion RMB.

The application exploration of block chain technology on the central bank's trade gold platform provides technical support and experience reference for the development of digital currency in Shenzhen. Shenzhen has a good technical foundation in communication, Internet and block chain, which can play a role in technical support for the research of digital currency. "Digital currency is not just about issuing coins, but also requires the support of many edge technologies, and Shenzhen has a good technical ecological environment." The convenience of digital currencies is mainly reflected in mobile payments, as well as cross-border payments and settlements, and one of the main goals to be achieved by Facebook's digital currency Libra is cross-border payments. And Shenzhen has a high penetration of mobile payment, and also has advantages in cross-border, adjacent to Hong Kong and Macao, and a high degree of openness, especially Qianhai is also piloting cross-border payment and settlement, with the advantage of docking to the international financial market.

The global block chain industry is currently in a rapid development stage, with an influx of entrepreneurs and capital and

a rapid increase in the number of enterprises. Block chain applications are accelerating to the ground, boosting the high-quality development of traditional industries and accelerating industrial transformation and upgrading. Block chain technology is used to “reduce costs” and “improve efficiency” for the real economy and boost the standard development of traditional industries. In addition, block chain technology is being derived as a new industry and a new driving force for economic development. Block chain technology is promoting a new round of business model changes and becoming an important support for building an honest social system. Meanwhile, global block chain enterprises are actively positioning block chain technology from an industrial height, and the policy system and regulatory framework are gradually developing and improving.

1.1 Initial Formation of Industrial Ecology

The next three years will be a period of closer integration between traditional industries and block chain. As block chain begins to change the market structure, companies will focus on business transformation, new ecosystems with smart contract technology will be integrated into existing industries, new business models and regulatory service models will emerge, and the number

of social enterprises will increase significantly. Cross-chain technology will enable the flow of value between different block chains, and even between block chain and traditional IT systems. Combining the current development speed of block chain technology and the maturity of the existing technology, market and regulatory system, it is foreseen that the block chain ecology will be widely implemented within three years and deeply combined with specific industrial scenarios to create new models and effectively promote the transformation and upgrading of the real economy and improve quality and efficiency. Block chain technology is widely implemented in the real economy, providing opportunities for the real industry to “change lanes” and directly realize “credible digitalization”. Using block chain technology, combined with the further promotion and popularization of the Internet of Things and Industrial Internet, a large number of transactions will shift from offline to on-chain, the networking rate of enterprise management systems and machines and equipment will be significantly increased, physical assets in physical space will be more widely mapped to cyberspace, digital assets will become an important part of enterprise assets, and the business model of the real industry will achieve unprecedented deep changes. This will greatly accelerate the global digitalization process and provide strong

support for digital construction.

1.2 The Increasingly Clear Context of the Industrial Chain

At present, the global block chain industry chain has been formed. From the upstream hardware manufacturing, platform services and security services, to the downstream industrial technology application services, to the industry investment and financing, media and talent services that guarantee the development of the industry, the companies in each field have been basically completed, and the synergy is orderly, and they jointly promote the industry to move forward continuously. From the distribution status of newly established companies in block chain industry segments, as of the end of March 2018, the number of industry application companies in the block chain field is the largest, among which the number of companies providing application services for the financial industry reaches 286, and the number of companies providing application services for the real economy reaches 309. In addition, the number of companies related to block chain solutions, underlying platforms, block chain media and community areas are above 140.

2 Global Block Chain Development Trend

The future communitization of the global block chain industry will be further accelerated. The new business model and production relationship changes brought by the development of block chain technology and the further refinement and improvement of block chain regulatory policies in various countries around the world will affect the investment choices of digital asset investment users on block chain. Block chain projects with offline physical industries as support and projects with application scenarios on the ground will be loved by users.

As the awareness of block chain technology increases, the potential application scenarios and application markets of block chain technology are continuously explored. Block chain is no longer a technical application in the ordinary sense, but involves national core competitiveness and national security. Previously, the IBM Block Chain Development Report pointed out that 90% of governments around the world are planning block chain investment and will enter the substantial investment stage by 2018.

2.1 Block Chain Development Prospects

With the first batch of Bitcoin mined by Dorian S. Nakamoto,

the block chain 1.0 era was opened, which can be simply understood as the period represented by old digital currencies such as Bitcoin and Litecoin in block chain 1.0 era. 1.0 era did not do much, but it brought the block chain into the real world, which is enough.

The most famous is that nine years ago, a programmer named Laszlo Hanyecz bought two pizzas with 10,000 bitcoins. This is widely considered to be the first transaction made with Bitcoin, and is one of the enduring jokes of the cryptocurrency community, with many cryptocurrency users calling this day “Bitcoin Pizza Day”. But on the other hand, the act of linking those virtual currencies mined in computers to real physical objects is a landmark and therefore priceless.

In the 1.0 era, people paid too much attention to just those virtual currencies built on block chain technology, how much they were worth, how to dig them, how to buy them and how to sell them. However, after time, more people will naturally pay attention to the technology itself, which subsequently is to trigger a new revolution - the block chain 2.0 era.

Block chain 2.0 era is represented by Ether and Ripple as smart contracts or understood as “programmable finance”, which is

an application to sort out and optimize the use scenarios and processes in the financial field.

Block chain 2.0 era is the era of smart contract development and application. A smart contract is a simple transaction that can be executed automatically. As a simple example, I make a bet with you that if it rains tomorrow, I win, and if it doesn't rain tomorrow, you win. Then we put the money into a smart contract-controlled account at the time of the bet, and when the next day passes and the results of the bet are available, the smart contract can automatically determine the winner and the loser and make the transfer based on the instructions received. This process is efficient, transparent and does not require the intervention of a third party such as justice. In other words, with a smart contract, there is no way to renege on a bet.

Nothing is more famous in the block chain 2.0 era than Ether, a public block chain platform with smart contract function, which can also be said to have set off the wave of block chain 2.0 revolution. Ether was born to solve the problem of Bitcoin's lack of scalability, and it proved to be true, as a large number of tokens were issued based on Ether. With the madness, it managed to push ETH to the second place in the global crypto digital currency market

capitalization list. However, block chain's 2.0 technology could only reach 70 to 80 transactions per second, which became a limiting factor for its rapid development. Thus, it is necessary to look into the future 3.0 era.

Block chain 3.0 era is the realization of the application scenario of block chain technology in the social field, expanding block chain technology beyond the financial field to provide decentralized solutions for various industries in the "programmable society".

In the era of block chain 1.0 and block chain 2.0, block chain only affected and enriched a small group of people, as it was limited to the industry of cryptocurrency and finance. Block chain 3.0 will give us a bigger and broader world. The future block chain 3.0 may be more than one chain and one coin, but an ecological, multi-chain network, similar to an operating system or an operating system of a huge computer similar to the computer globe.

Therefore, in the 3.0 era of block chain, the value of block chain will go far beyond the economic fields of currency, payment and finance, and it will use its advantages to reshape every aspect of human society, fundamentally change the trust mechanism and promote the development of the whole society forward. This is a revolution without smoke and mirrors, then what we have to do is to

accelerate it, meet it, embrace it and finally change the world.

2.2 Block Chain Technology Empowered Entities

Block chain 1.0 era is mainly the digital coin stage represented by Bitcoin, which plays more of a distributed bookkeeping role; 2.0 era is the smart contract stage represented by Ether, which uses decentralized virtual machines to handle peer-to-peer transactions; and 3.0 era is the era of comprehensive application of block chain technology.

Block chain enters the 3.0 era and will focus on empowering the real economy with a wide range of application scenarios, which can be deeply applied to various fields such as social management, culture and entertainment, financial services, medical and health, IP copyright, education, Internet of Things and communication. The most matching field of block chain is the combination with the sharing economy, which can quickly start and activate the sharing economy. “The premise of the sharing economy is the scale effect, and without scale you can't share.” By sharing through block chain technology, enterprises can utilize the idle resources in the hands of users without investing a lot of money to purchase resources,

which solves the problem of the original accumulation of resources in the sharing economy.

Besides, block chain can also solve the problem of fairness that exists in the sharing economy, i.e. fair access to resources and fair access to rewards. “In the sharing economy of block chain application, the so-called ‘price discrimination’ hardly exists.” “Big data price discrimination” refers to the situation that old customers or customers with higher purchase frequency spend more money than new customers or customers with lower purchase frequency for the same products and services. On the block chain, you can see the information and data of each transaction, so it is difficult for enterprises to use the opaqueness of information to “price discrimination”, thus protecting the rights and interests of consumers. At present, China is moving from block chain 2.0 era to 3.0 era, which will undoubtedly better empower the real economy.

2.3 Block Chain + Big Data

Using block chain technology on big data will ensure that the data we have on the chain will not be tampered with. In practice, it will also reduce the cost of trust between people, because most of the time, we have to do a lot of work to trust someone in order to make

the cooperation more efficient.

Suppose there is a platform that can present some of our past transaction data, and these transaction data are based on some consensus mechanism, and everyone trusts this mechanism, then, this will invariably save a lot of transaction costs. Secondly, the non-tamperability of block chain data predestines people to pay extra attention to the authenticity of their data before the data is put on the chain, because once they acquiesce to the falsification of their data, it will certainly be difficult to survive as individuals in the world of block chain in the future.

Because all data is transparent and open (requires verification), then data also means that it cannot be deleted or modified, and your data is endorsing your own personality brand. Therefore, the combination of block chain and big data will, to a certain extent, avoid a kind of neglect of the bad results caused by data falsification in the future. With the development of big data, the phenomenon of excessive centralization of data will also be curbed in the future, that is, like the above-mentioned data silos, excessive concentration of data, and data privacy leakage will be improved to some extent.

3 Development Opportunities for POT

With the arrival of the block chain 3.0 era, block chain technology will realize applications in various fields of society, promoting the development of industries and emerging technologies. Block chain is just a technology and not a mystery in itself. However, as a disruptive technology, block chain is expected to create a “value Internet”, promote the entire economic system to achieve technological change, organizational change and efficiency change, and make an important contribution to the construction of a modernized economic system, thus attracting wide attention from all walks of life. The emergence of business alliance is dedicated to solving the pain points of traditional entity merchants and bringing substantial changes to the development difficulties of the real economy, and the application value is unforeseeable.

Block chain is embedded in the entity business alliance, creating a decentralized POT ecological economy, supporting the development of the real economy in terms of capital and technology, thus breaking the industry monopoly barriers and allowing more public to enjoy the environmental and wealth achievements brought by the technological revolution. The normal development of all

business needs to be based on sustainable development. POT deeply integrates block chain economy with business economy, supports the development of business economy in terms of technology and concept, and radiates the whole industry chain based on business economy. At the same time, the combination of POT + block chain, two dual chains with unlimited potential, gives entrepreneurs and volunteers who are committed to project research and development and entity business an opportunity to increase their wealth, and at the same time will drive the development of the whole business chain.

II. Project Introduction

1 POT Positioning

Portaldot, abbreviated as POT (hereinafter referred to as POT), is an international basic public chain invested and developed by Portaldot Foundation (POT Foundation), which has entered into strategic cooperation with famous block chain and Internet technology companies in the UK for technology development since its launch. Members of the POT Foundation have organized a management committee within the POT Foundation to provide self-governance and co-management services to the members and the promotion of POT.

POT is based on the deep integration of cutting-edge technologies such as block chain and big data with the real industry to comprehensively solve some global economic dilemmas such as traditional real businesses' economic development difficulties, high financial threshold, and enterprise capital bottlenecks. The British side combined the foundation's strong capital and resource advantages to create a block chain application platform that runs through the global business ecological economic industry chain.

2 Project Core Advantages

2.1 Team Advantage

POT technical team is a mature technical team from the UK. Most of the team members have been in the block chain field since 2015. They are all senior developers from global well-known Internet giants, with rich experience in system design and in-depth research on open source systems such as ethereum and Bitcoin, specializing in multi-language computer programming, and have provided block chain technical support for international famous financial institutions and utility companies. At the same time, the excellent technical team carries its own light, and the project development has attracted many European capitalists, providing strong financial support for the team's development.

2.2 POT Solves Traditional Merchant Pain Points

Block chain can open the barriers between industries. All data is traceable and non-tamperable on the block chain, and the data is real and reliable, so that the industries are connected to each other. We strive to connect the industries on the block chain, after which we will apply our technology to more industries, and form business

resource integration and ecological industrial alliance on the block chain.

The design of POT fully considers the rational use of merchant resources and the difficulties in the development of the real economy, enabling the development of traditional entity merchants to effectively combine with block chain technology. POT is committed to solving the pain points of high threshold of traditional entity finance and difficulties in the development of the real economy, and helping the real economy to develop better.

2.3 One-stop Service Platform for Physical Merchants

POT has created a new business model – one-stop business alliance platform, which deeply integrates block chain economy with real economy, supports the economic development of real business from technology and concept, provides users with the development of business ecosystem based on block chain underlying technology public chain, provides top-level design, technical support, resource integration and online platform for chain enterprises and projects, etc. We provide exclusive enterprise project incubation services, and will continue to develop and update according to user needs.

3 POT Pass Program

In order to allow more volunteers and entity merchants to participate in the creation of POT, and also to create awareness before the introduction of POT, members of the Business Alliance have discussed the implementation of the POT plan: to create a block chain merchant mall, to bring together the resources and advantages of entity merchants in various industries for integration, and to combine block chain technology for games, mining, etc. to attract traffic to the mall, so that consumers can participate in the daily consumption of POT's promotion and future dividends realized by POT project. At the same time, it can also enable merchants to get the integration of resources and sustainable development in investment and promotion.

POT is Portaldot's native Token, the only pass-through in Portaldot's ecosystem, with a total issuance of 3 billion and never to be issued again. It is mainly used for POT ecology construction, Defi and governance, community incentive, network building, operation and payment, etc.

(1) Pre-mining 900 million pieces

100 million foundation pieces, or 3.33%: 30 million pieces for early stage financing, foundation building and airdrop; 70 million

pieces for market dispatch (released linearly over 4 years).

Commercial financing reserve of 300 million pieces, or 10% (released linearly over 4 years).

The ecological support plan is 500 million pieces, accounting for 16.67%: 100 million of them are used for financial ecology creation, i.e. financial mining, DEFI, NFT, etc.; the remaining 400 million pieces are released linearly in 4 years for ecological construction, community governance, rewards, late financing, etc.

(2) NPOS node server mining 2.1 billion

The plan is to mine 20 years, every 4 years by half. The block speed is 1 minute. For example, in the first 4 years, each block produced 515.539843865POT, and the main network block height was about 2102400. The first production was halved.

(3) Node server pledge

Mining rewards are determined based on the total pledge volume and inflation rate, and each verifier pool is allocated proportionally based on their respective Era Points after the rewards are generated. The minimum pledge amount is 5,000 POT/unit, the maximum pledge amount is 30,000 POT/unit, and the maximum pledge rate is 80%. The specific reward formula is as follows.

Verifier Bonus: $R_PE_PVP * C + R_PE_PVP * (1 - C) * (S_V / TS_VP)$

Nominee award: assuming the i^{th} nominee, the award is $R_PE_PVP * (1 - C) * (S_N_i / TS_VP)$

Role explanation:

Validator: Runs the full node and pledges a certain token to become a validator, responsible for network maintenance, and receives a certain percentage of the return.

Nominator: No need to run a full node, pledge a certain token to the verifier and get a certain amount in return.

Validator pool: $1 * \text{validator} + N * \text{nominator}$ for a pool of validators

Validator set: several pools of validators

Parameter comparison:

Slot: Block out time

Era: Several slots form an era, and each era ends with a new set of verifiers, and E_Y indicates how many Era's there are in a year.

Era Points: the percentage of Era Points for each verifier is expressed as E_P , based on the overlay of the verifier's block volume, validity statements for parallel chains, etc..

Total Award per Era = Annual Inflation Rate * Total Pledged Volume / E_Y , denoted by T_R_PE .

Per Era per verifier pool award = $T_R_PE * E_P$, denoted by R_PE_PVP in the following.

Distribution of rewards for each person in the verifier pool: proportional distribution according to each person's pledge volume after deducting commissions

Commission rate: denoted by C .

Total pledged volume of the validator pool: denoted by TS_VP .

Validator pledge volume: denoted by S_V .

Nominee pledge volume: Assuming that there are x nominees, the pledge volume of each nominee can be expressed as $S_{N_1}, S_{N_2}, \dots, S_{N_x}$.

III. Application Lists

1 Cross-border Payment

In cross-border trade business, there are often problems with complicated and cumbersome procedures, poor timeliness and soft terms. Swift, for example, requires filling in information at the counter, usually arrives in two to three business days, and sometimes a single transaction can take up to several days, and charges a telegraphic fee in addition to the processing fee. Bank of China, for example, charges 1/1000 of the remittance amount (a minimum of RMB 50), in addition to a telegraphic fee of RMB 150. At the same time, there are still a lot of paper documents in the transaction, which is not only inefficient but also has the risk of loss and trust. The systems commonly used nowadays, such as: letter of credit settlement, collection settlement, bank guarantee letter, etc., also have various defects and problems, which bring inconvenience to cross-border trade.

POT uses block chain technology to overlay data across businesses and can break international trade limitations and solve cross-border payment problems. Its qualities of high reliability, streamlined processes, traceability of transactions, cost savings, error reduction and improved data quality give it the potential to

reconfigure the infrastructure of the financial industry. It is capable of solving the pain points of payment and settlement, enabling fund transfer through block chain technology, establishing direct interaction between transnational recipients and payers, simplifying the processing process, realizing real-time settlement, improving transaction efficiency, and reducing business costs.

POT will solidify the basic system and transaction rules of the existing business system in the underlying protocols, promote the standardization and automation of the underlying logic and the distribution of the high-level business applications, and improve the efficiency. The above procedures may be streamlined to within a few hours, which will have a disruptive impact on the system foundation and participant relationships of the existing business system.

2 Social E-commerce

There are inefficiencies, insider trading, insecure information, commercial fraud, regulatory gaps, duplicate pledges of warehouse receipts, opaque information, and other behaviors that greatly constrain the development of commodities trading.

POT Mall adopts a distributed system framework, the system can completely replace the traditional paper documents and

increase the efficiency of document data processing by several times through automated data matching. Through encryption technology, transaction information of buyers and sellers is shared and monitored and recorded in real time to prevent data tampering and loss, which improves the transparency of transaction information while protecting key information and enables regulators to reduce supervision costs and improve supervision.

2.1 Chain Duo Duo E-Commerce Platform



Based on social e-commerce, block chain technology, five systems, technology-driven, and the guiding ideology of “de-emphasis to reality”, Chain Duo Duo is committed to solving the supply and marketing problems of small and medium-sized enterprises and the business problems of real merchants.

Chain Duo Duo e-commerce platform is the POT Foundation investment incubation e-commerce platform. Chain Duo Duo 1.0 was officially released on July 1, 2020. The platform adopts block chain technology, combines e-commerce with block chain with distributed e-commerce thinking different from the existing

traditional e-commerce platform, and promotes the rapid development of the platform from various angles such as block chain traceability system, pass-through certificate reward system, and live broadcast room carrying goods. Excellent results have been achieved: the turnover of the e-commerce platform in the first month of its launch exceeded 1 million; 5,000 registered members, and 2,300 VIP members; more than 100 merchants have settled in.

3 Multilateral Trade Finance

Union chain is established among trade financing participants such as suppliers, incoming suppliers and banks, and information on the qualification of trade subjects, multi-frequency transactions and commodity flow is recorded through block chain, so that both trade parties and banks can share real and credible information in an open, transparent and safe manner. For large enterprises in the supply chain, banks can use it to enrich the financing risk control model, reduce the workload of offline manual collection and confirmation of information authenticity, and carry out financing services under movable assets assessment. Small and medium-sized enterprises upstream and downstream of the supply chain with financing difficulties can obtain credit endorsement based on the subject qualification certification provided by block

chain and multi-frequency transaction information certification with large enterprises to alleviate financing difficulties.

4 Mobile Communication Applications

The telecom industry is a typical industry that requires multiple parties to make decisions together and the upstream and downstream industry chains to collaborate and cooperate with each other, and the trust between each other and the efficiency of communication affects the service level of the whole industry to a certain extent. accuracy. In addition, on the application platform built by POT, users can use their smartphones as communication nodes to provide node rewards for users, and the reward tokens can in turn be used for payment of consumer services such as phone bills and traffic in the telecom industry, stimulating the circulation of tokens and promoting the use of Dapp in the community and the development of the POT ecosystem.

IV. Technology Strategy

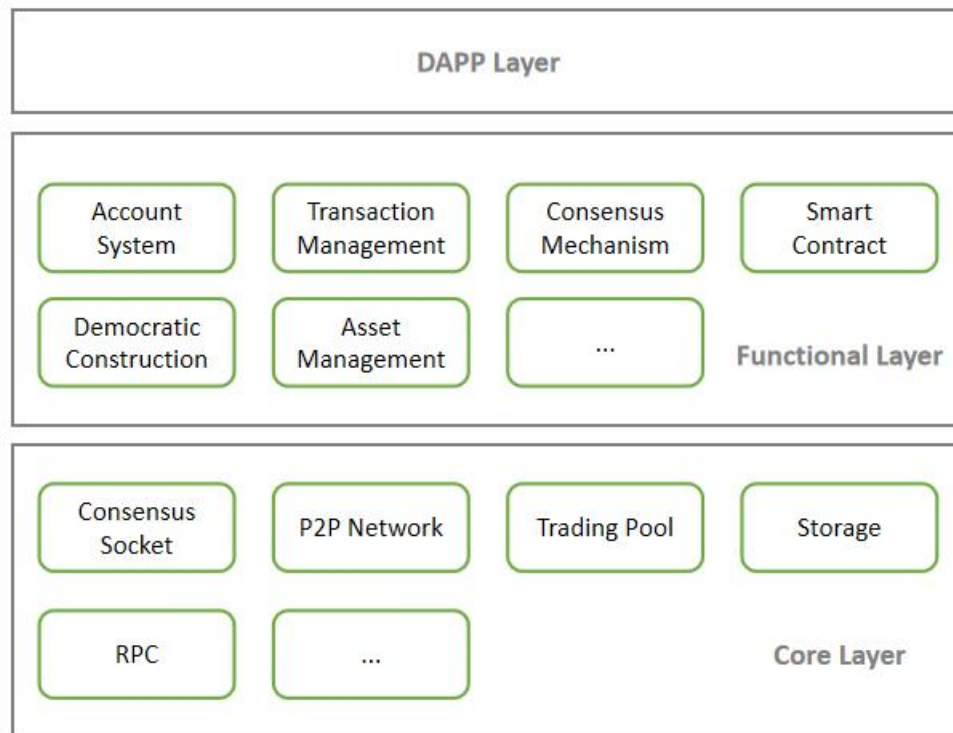
1 Overview

The Portaldot Network is the cornerstone of Portaldot's vast ecosystem.

The Portaldot Network, a new generation of block chain protocols, combines entire networks dedicated to building block chains to support them to work together at scale and without gaps.

Portaldot Network allows sending any type of data between any type of block chain, thus it unlocks a large number of real-world application scenarios. By combining the best features from multiple dedicated block chains, it paves the way for new decentralized marketplaces that provide more equitable service support for various decentralized applications.

2 Architecture Design Overview



Portaldot Network was designed with full adherence to

- Modularity
- Low Coupling
- High concurrency
- Security

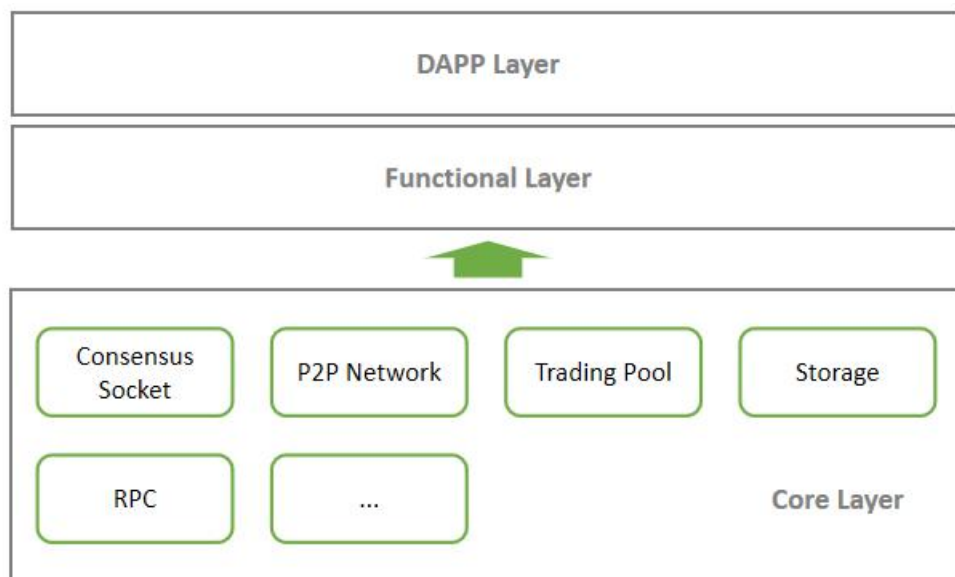
According to the design principles, the system as a whole can be divided into three major layers: core layer, functional layer and DAPP layer.

- **Core Layer:** Provides core basic functions of block chain network for Portaldot Network, including consensus socket, P2P network, transaction pool, storage support, RPC interface, etc.
- **Functional layer:** Define the business logic of the blockchain network for Portaldot Network. We can think of the functional layer as a “state transition function” in the blockchain network, which defines the storage items used to represent the state of the blockchain network, and also defines the functions that allow users to make

changes to that state.

- DAPP layer: Decentralized application ecology developed based on Portaldot Network. Due to the support for a large number of real scenarios, it is foreseen that a variety of applications including Internet of Things (IoT), finance, governance, identity management, etc. will appear in our ecology.

3 Core Layer Design



3.1 Consensus Socket

A consensus mechanism is a logic that allows block chain network participants to agree on the state of the block chain. The consensus socket provides the underlying logic of the consensus mechanism and provides support for possible future consensus upgrades.

3.2 P2P Networks

Portaldot Network uses the Rust-based libp2p library to implement this functionality.

3.3 Trading Pools

The transaction pool contains all signed and unsigned transactions that have been broadcast in the network, received and verified by the local nodes.

3.3.1 Validity check

The transaction pool checks if the transaction is valid, e.g.

- Check if the transaction index (nonce) is correct
- Check if there are enough funds in the account to cover the related expenses
- Check if the signature is valid
- The pool also periodically checks the validity of existing trades in the pool. If an invalid or expired regular trade is found, the trade is removed from the pool.

3.3.2 Transaction sorting

If the transaction is valid, the transaction queue divides the transaction into two groups.

- Ready queue - contains all transactions that can be placed in a new pending block.
- Future queue - contains all transactions that may become valid in the future. For example, if a transaction has a too high index (nonce)

value, this transaction will wait in this queue until the previous transactions are uploaded to the block chain.

3.3.1 Validity check

The transaction pool checks whether the transaction is valid, such as:

- Check that the trading index (nonce) is correct
- Check whether the account has enough funds to cover the related expenses
- Check if the signature is valid
- The trading pool also regularly checks the validity of existing transactions in the pool. If invalid or expired ordinary transactions are found, the transaction will be deleted by the trading pool.

3.3.2 Transaction Sort

If the transaction is valid, the transaction queue will divide the transaction into two groups:

- Ready queue-contains all transactions that can be placed in new pending blocks.
- Future Queue - Contains all transactions that may become valid in the future. For example, a transaction with an excessive index (nonce) value will wait in this queue until the previous transaction is

uploaded to the block chain.

3.3.3 Transaction dependencies

The ValidTransaction structure defines the dependencies that require and provides parameters to build a transaction. Together with the priority parameter, this dependency design allows the transaction pool to generate a valid transaction linear order.

All signed transactions need to include a transaction index (nonce), the index value will increase by 1 every time a new transaction is made, for example, the first transaction of the new account will be nonce = 0, and the second transaction will be nonce = 1.

The trade body provides a label with a value of

Provides = Encode (sender + nonce)

And requires a label whose value is

Requires = Encode (sender + (nonce - 1)) if nonce > 1

If nonce = 0, the transaction does not need other information.

Therefore, all transactions from a single sender will form a sequence and be included in it.

3.3.4 Transaction Priority

The TransactionPriority structure in ValidTransaction

determines the order of transactions in the ready queue. When a node becomes the next block generator, it will prioritize transactions from high to low in the next block until the weight or length limit of the block is reached.

Priority defines the linear ordering that a transaction should have when it can unlock multiple dependent transactions. For example, if we have multiple transactions whose dependencies are satisfied, we will use priority to select their processing order. For example:

1. If we receive 2 transactions from different senders, we determine which transaction is more important through priority and package it into the block first.

2. If we receive 2 transactions with the same nonce from the same sender, only one transaction will be packaged onto the chain.

We use priority to select a transaction with a higher fee and store it in the transaction pool.

3.3.5 Transaction Lifecycle

The transaction life cycle can follow two paths:

- Block generated by local node:

- (1) Our nodes will monitor transactions on the network.

- (2) Every transaction must be verified, and valid transactions

will be put into the transaction pool.

The transaction pool is responsible for sorting the transactions and returning the transactions that can be included in the block. The transactions in the ready queue will be used to package into the block.

(3) The transaction will be executed, while the state change will be stored in local memory. The transaction from the ready queue will also be propagated to other nodes on the network. We will use the sorting of quasi-blocks to process, because the transaction in front of the queue has higher priority and is more likely to be successfully executed in the next block.

(4) The built block will be published on the network. All other nodes on the network will receive and execute the block.

(5) The transaction will not be deleted from the ready queue when the block is generated, and will only be deleted when the block is imported.

- Block received from the network: After the block is executed, the whole block either succeeds or fails.

3.4 Storage

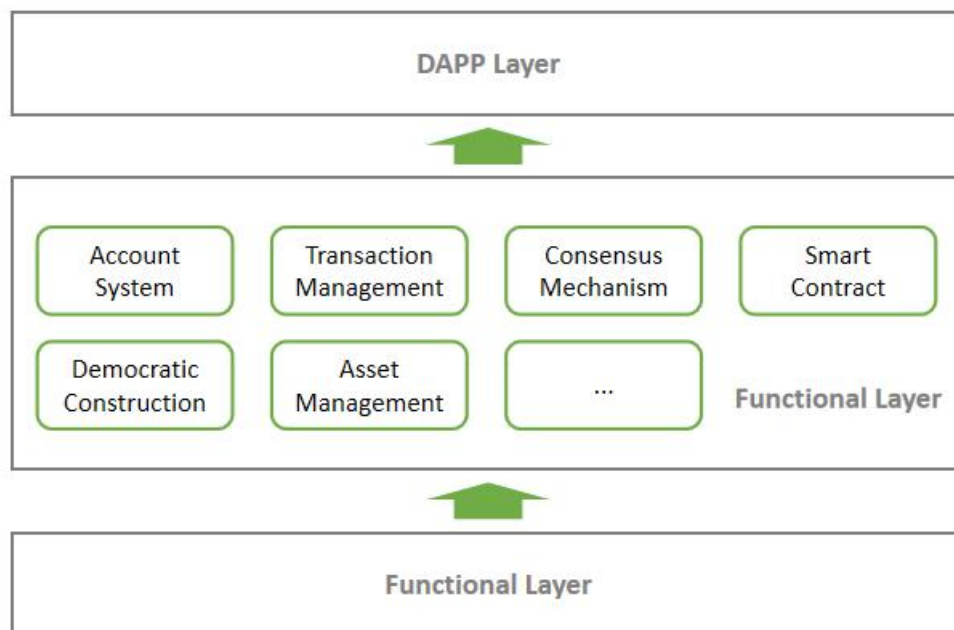
It is used to store the growing state data in the block chain network. The block chain network enables participants to reach a

consensus on the storage state without trust. Portaldot Network uses an efficient key-value storage mechanism based on RocksDB.

3.5 RPC (Remote Procedure Call) Interface

A feature that allows block chain users to interact with the network. Portaldot Network provides HTTP and WebSocket RPC services.

4 Functional Layer Design



4.1 Consensus Mechanism

4.1.1 Overview

Consensus is a method of reaching agreement on a shared state. In order for the state of the blockchain to continue to build and move forward, all nodes in the network must reach a unanimous consensus. In this way, nodes in a decentralized network can stay in sync with each other. Without consensus among the decentralized network nodes on a blockchain, there is no way to ensure that the state shared by other nodes is real. Consensus aims to provide objective facts about the state among the participants, each of whom has its own subjective view of the

network. The process of communication between these nodes and reaching an agreement enables the construction of new blocks.

4.1.2 Concept definition

Slot: representing the block generation time.

Epoch: a fixed-length set of Slots in which the randomness parameters associated with block production are redefined within each period.

Era: a fixed-length set of Epochs that will re-elect the verifier at the end of each era.

VRF: Verifiable Random Function, generated based on a private key that anyone can prove with a public key.

4.1.3 Roles

- **Validators:** At the end of each Era, the system selects a set of validators who will play key roles in highly sensitive protocols, such as block production and final validation, for the rest of the Era. Their job is demanding as they need to run costly operations, ensure high communication responsiveness, and build a long-term reputation for reliability. They must also pledge their Tokens as a guarantee of good behavior, and when they deviate from the protocol, this pledge is punished away. Conversely, when they play by the rules,

they are rewarded. Any node that completes a task can openly become a candidate verification node. However, due to operational reasons, only a limited number of verifiers can be selected in the end.

Nominator: The nominator publishes a list of candidates he trusts and pledges a certain number of Tokens to support them. If some of these candidates are selected as validators, he will be rewarded with a corresponding interest based on the percentage of the pledged quantity. Unlike the validators, there is no limit to the number of nominees. As long as the nominator goes for selection and supports only candidate validators with good security practices, then his risk is low and he has an ongoing source of income.

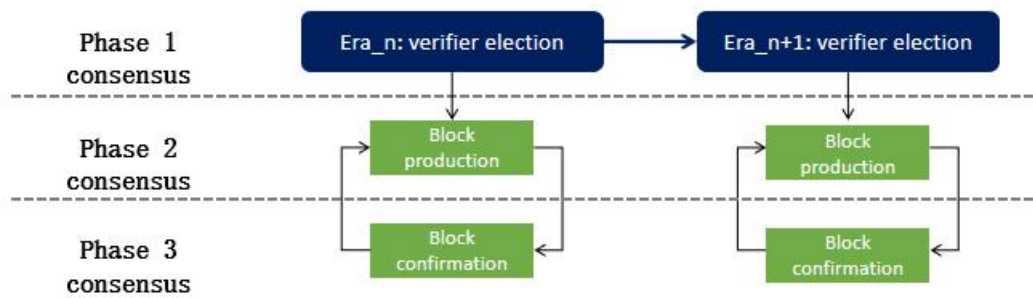
4.1.4 Consensus mechanism of Portaldot Network

In Portaldot Network, we use not the traditional single type of consensus, but a hybrid consensus, and the complete consensus work process is divided into three phases.

Phase 1: Election of the set of certifiers.

Phase 2: Validator production block.

Phase 3: The verifier performs the block confirmation to form the final certainty of the whole system.



4.1.5 NPoS-based Authenticator Election

Portaldot Network's verifier set is a finite sized set that can number in the hundreds or thousands, a number that will ultimately be determined by governance, but which will be independent of the number of users in the network, thus ensuring scalability. Unlike other PoS-based projects that measure voting weight based on the number of pledges made by verifiers, Portaldot Network gives equal voting power to the elected verifiers in the consensus protocol, while the system allows an unlimited number of nominees to participate who help maintain a high level of security throughout the system by putting more value into it.

Based on the preferences of the participants, a new set of validators is selected at the beginning of each Era to serve this Era. Each person can choose to be a verifier candidate or a nominator, and each candidate sets his intended pledge input and commission. In turn, each nominator posts a list of candidates she trusts and pledges. A verifier and all supporting nominees will form a verifier

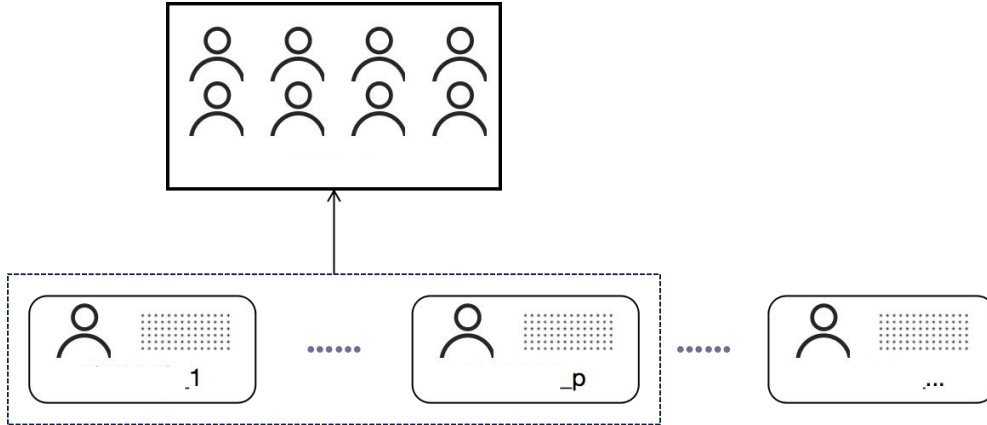
pool, and the number of pledges will be equal to the number of votes, for a given verifier pool we define

$$PoolStake_n = v_n + \sum_{k=1}^j n_k$$

Then the total number of votes received by each verifier pool is

$$PoolStake_n = v_n + \sum_{k=1}^j n_k$$

Assuming that the verifier set size is set to p , we input this information into the election protocol to select the most supported p candidates as verifiers for this Era.



Nominators share rewards or penalties with the validators they nominate. Thus, nominators in the ecology are seen as a kind of supervisor who will determine whether to support a verifier based on parameters such as their pledge level, commissions, past performance and security practices. The system allows for the election of validators with a large number of total shares, thus

helping to turn the validator election process into a fair election rather than a dictatorial rule. We determined that there is a certain amount of pledges in the system at any given moment, which makes it very difficult for any organization to interfere with the election process because it needs a large number of pledges or a high enough reputation to gain the support of the nominee, and such an attack is expensive and may lose all his pledges and reputation.

4.1.6 VRF-based block production

Portaldot Network uses a Slot-based block generation mechanism and performs slot allocation randomly using VRF PRNG. On each Slot, all authorized institutions use the VRF function to generate a new random number that entitles them to generate a block if it is less than a given threshold value (proportional to their weight/pledge.) The proof generated by the VRF function will be used by other peer nodes to verify the legitimacy of the block declaration.

The engine is also responsible for collecting the on-chain entropy that will be used to specify the seed of the VRF PRNG. Within an Epoch, we will use the same set of verifiers and all VRF outputs due to block generation will be collected in the on-chain

random pool. Announcing Epoch parameters one Epoch earlier, i.e. at the end of an Epoch numbered N , the chain announces $N + 2$ Epoch parameters (random numbers, weights, etc.).

Since Slot assignment is random, it is possible to assign a Slot to multiple validators, in which case we will have a temporary fork, or it is possible that a Slot is not assigned to any validator, in which case no block will be generated. The time to produce a block in this case is uncertain. We set a parameter

$$c(0 \leq c \leq 1)$$

Then the probability that the verifier in a Slot is empty is

$$1 - c$$

The choice of this parameter thus affects the security of the protocol associated with the maximum tolerable network delay.

In addition to the above VRF-based Slot assignment (which we refer to as the primary Slot), this mechanism also supports deterministic secondary Slot assignment. When running a verifier node, the primary Slot has a higher priority than the secondary Slot, and the verifier node first tries to declare the primary Slot, then backs off and tries to declare the secondary Slot. The secondary Slot assignment is done by selecting the permissions at the index.

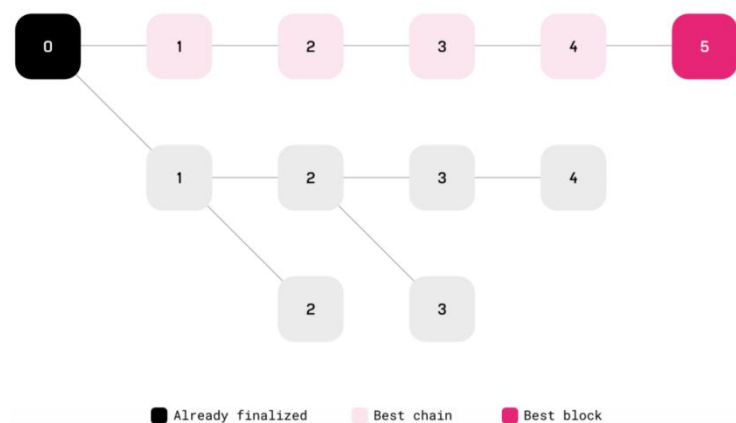
$$\text{blake2}_{256}(\text{randomness}_{epoch} + \text{number}_{slot}) \bmod \text{len}_{authority}$$

The secondary Slot supports either the SecondaryPlain or

SecondaryVRF variants, with the SecondaryVRF variant generating additional VRF output compared to the SecondaryPlain variant.

4.1.7 BFT-based block confirmation

As long as $2/3$ of the nodes in the Portaldot Network are honest and can handle $1/5$ of the Byzantine nodes in an asynchronous setup, it can operate as part of a synchronous network model with a final deterministic proof system using the longest chain rule for voting.



A notable difference compared to other blockchain systems is that GRANDPA reaches agreement on the chain, rather than on the block, even after a prolonged network partition or other network failure, thus greatly speeding up the finality determination process. In other words, once more than $2/3$ of the verifiers prove the chain containing a block, all blocks leading to that block are immediately

completed.

4.2 Smart Contracts

Portaldot Network provides the ability to deploy and execute WebAssembly-based smart contracts.

4.2.1 Smart contract language *ink!*

ink! is a Rust-based eDSL dedicated to writing a language for Wasm smart contracts in blockchain networks that is designed for correctness, simplicity, and efficiency.

4.2.1 Smart Contract Development

Traditional smart contract platforms allow users to publish additional logic on top of the core block chain logic. Since anyone (including malicious participants and inexperienced developers) can publish smart contract logic, there are many deliberately designed security safeguards built into these public smart contract platforms. The following are some examples.

- **Fees:** Ensure that contract developers pay for the compute and storage resources taken up by the execution of smart contracts, so that the resources of the outgoing block nodes are not abused by

them.

- **Sandbox:** A contract cannot directly modify the core blockchain storage or the storage of other contracts. It serves to restrict a contract to modify only the state it owns and can only initiate external calls to other contracts or state functions.
- **Stateful leasing:** Contracts will need to pay for the space they take up on the blockchain. This ensures that people do not profit from “free and unlimited storage”.
- **Rollback:** Contracts may have situations that cause logic errors. We have low expectations of contract developers’ development capabilities, so we have added additional overhead to support rolling back the entire transaction in case of failure. This way, no state is changed in the event of an error.

These different overheads make smart contracts slower and more expensive to run, but the “target audience” for contract development is different from that of state developers. Contracts allow your community to scale and develop on your state logic without having to deal with maddening proposals, state upgrades, and so on. It can even be used as a test base for future state changes, insulating your network from future pains or errors that may occur as a result of growth. In summary, Portaldot Network Smart Contracts.

- It is inherently secure for the network.
- Prevent abuse through financial incentives.
- Error handling is supported by additional computational overhead.
- Lower development threshold.
- The pilot field allows the community to interact quickly to create new logic.

4.3 Account System

Portaldot Network uses multiple sets of public/private key pairs to represent the participants of the network. The key pair represents an account and can control funds, similar to a normal account in other blockchains. Depending on the different roles of the participants, the account key can be differentiated into three different abstractions: Stash key, Controller key and Session key.

4.3.1 Stash keys

A Stash key is a public-private key pair that defines a Stash account. This account is like a “savings account” and you should not use it for frequent transactions. Therefore, the private key should be handled in the most secure way possible, for example in

a security layer or protected by secure hardware.

Since Stash keys are stored offline, it specifies a Controller account to make payment-independent decisions based on the weighting of Stash account funds. It can also assign a proxy account to vote on its behalf in governance.

4.3.2 Controller Keys

The Controller key is a public-private key pair that defines the Controller account. In the NPOS model, the Controller key will authenticate or nominate on behalf of an account.

The Controller key is used to set payment preferences, such as the destination address for nominating rewards, and if it is a verifier, it can be used to set the session key. The Controller account is only required to pay transaction fees, so it only requires a minimal amount of funds.

Controller keys cannot be used to spend funds from a Stash account. However, the actions of the Controller account may result in penalties, so it should still be kept safe.

4.3.3 Session keys

Session keys are “hot keys” that the verifier uses to sign and consensus related messages. They should not be used as account

keys to control funds, and they should only be used for their designated purposes. They can be changed regularly; the way they are changed is that your Controller account simply creates a certificate by signing the session public key and broadcasts the certificate in the form of external transactions.

In order to create a session key, the verifier's operator must prove that it has a key capable of representing its Stash account (pledge) and nominator. To do this, they sign this secret key using their own Controller key, thus creating a certificate. They then inform the block chain that the session key represents their Controller key by publishing a transaction on the chain that contains that session certificate.

4.4 Asset Management

In general, asset systems provide alternative asset management functions with fixed availability, including asset issuance, asset transfer, asset freeze, asset destruction, etc. The asset system in Portaldot Network is designed to achieve the following.

- Issuance of new substitutable asset classes in a licensed manner and payment of a certain amount of margin.
- Allow accounts to hold these assets without the need for anything

else to exist on the chain.

- Move assets between accounts.
- Renew the total supply of assets.
- Allow accounts with special privileges to perform administrative activities, including freezing account balances and casting/destroying assets.

5 Advantages

5.1 Bifurcation-free Upgrade

These days, we're used to frequent updates to our applications. Developers fix design errors before they cause problems, and add new features as better solutions become available. Like all applications, block chain needs to support upgrades to keep up with the times. However, upgrading a block chain is much more difficult than upgrading a regular application, upgrading a traditional block chain will result in forking the network, and a controversial hard fork could also split a community.

Portaldot Network revolutionizes this process by enabling blockchains to be upgraded without the need to fork the chain, which is achieved through transparent on-chain governance. With this feature, Portaldot Network enables projects to remain agile, adapting and evolving as technology evolves. It also greatly

reduces the risks associated with controversial hard forks, which can be serious matters for many organizations.

5.2 Highly Scalable

One blockc hain is not enough to support a prosperous future of decentralized applications, and the limited throughput and lack of dedicated functional layers of early block chain make them unscalable in many practical scenarios.

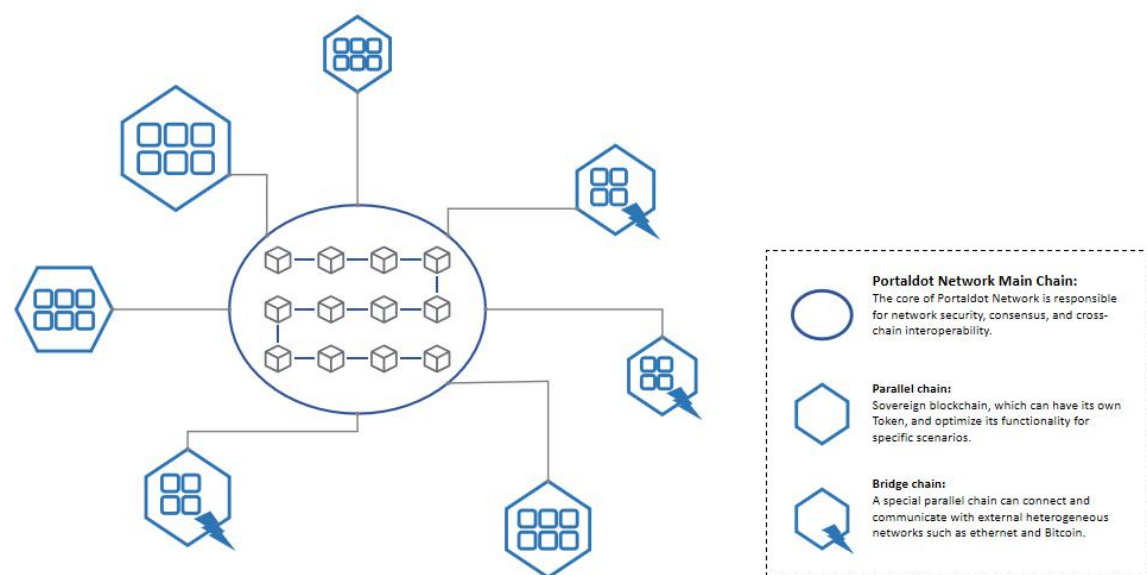
The Portaldot Network allows multiple transactions to be processed in parallel by bridging multiple dedicated chains into a single sharded network. This system eliminates the bottlenecks that previously occurred in networks that processed transactions on a transaction-by-transaction basis, and Portaldot Network will be able to scale further in the future by nesting relay chains, which will increase the number of tiles that can be added to the network.

5.3 Heterogeneous Multiple Chains

Portaldot Network refers to a network of heterogeneous blockchain fractions as parallel chains. These chains are connected to and secured by the Portaldot Network master chain, and they can also be connected to external networks via bridges. This means that it connects multiple chains in a single network,

allowing them to process transactions in parallel and exchange data between chains while providing security.

Thanks to Portaldot Network's unique heterogeneous sharding model, each chain in the network can be optimized for a specific scenario, rather than being forced to fit a one-size-fits-all model.



V. Foundation

1 Introduction to the Foundation

The POT Foundation (hereinafter referred to as the "Foundation") is a non-profit entity established in the U.K. The POT Foundation will act as an advocacy entity for the POT, advocating and promoting transparency in the development and governance of the POT, and promoting the safe and harmonious development of

the open source eco-community. The POT team has commissioned a credible third-party organization to assist the team in setting up the entity in the UK and to maintain the day-to-day operations and reporting of the entity's structure. As the number of members volunteering to join POT and build POT continues to grow, the Foundation selects appropriate participating members of the Business Alliance to join the Foundation's functional committees and participate in actual management and decision-making. Members are drawn from the Business Alliance Federation and are functionally supervised by the Foundation.

The Foundation is based on the sustainability of project development, effectiveness of strategy development, management effectiveness, risk management and efficient operation of projects. The Foundation adheres to five major principles in its governance structure: the integration of centralized governance and distributed architecture; the coexistence of functional committees and functional units; the principle of risk-oriented governance; the coexistence of technology and business; and the principle of transparency and oversight.

2 Organizational Member Units

The organizational structure of the POT Foundation proposes

a combination of professional organizational committees and functional departments to respond to day-to-day work and special matters. The following is a detailed description of the Foundation's functional committees and the responsibilities of the main functional departments. The foundation will be established with reference to the operation of traditional entities, and will consist of various functional committees, including the Strategic Decision Committee, Technical Review Committee, Compensation and Nomination Committee, and Public Relations Committee. The organizational structure of the Foundation includes (as shown below)

VI. Partners



Hash Capital is a leading global venture capital and asset management firm. The business covers venture capital, advisory research and asset management. Hash Capital focuses on every step of innovation in the technology sector and the business changes it brings. Investment areas include artificial intelligence, big data, blockchain and other cutting-edge technologies.



GSC is committed to providing retail clients and financial institutions with a wide range of financial derivatives trading services, mainly including foreign exchange, metals, energy, stock indices, stocks, agricultural products and other CFD products. We are committed to providing excellent customer service, leading platform technology, and competitive trading conditions to meet the different needs of global investors.



Portaldot Club, the Portaldot International Club, is a collection of governance communities formed autonomously by all parties involved in the Portaldot Network, including major communities, ecological parties, developers, nodes, miner organizations, funders, etc. Portaldot Club is a key partner of the Portaldot Network and plays an important role in Portaldot Club is an important partner of Portaldot Network and plays an important role in Portaldot evangelism, ecological node building, community governance and sustainable development.

VII. Development history

In August 2018, the core team proposed Portaldot Network and the technical route

In January 2019, Portaldot Foundation was founded and held a geek seminar

In May 2019, Portaldot team joins top underlying architects

In September 2019, the Portaldot Foundation entered into a partnership with a multinational blockchain technology team

In November 2019, Portaldot Foundation receives funding from a European consortium

In October 2020, Portaldot Foundation supports the completion of the social e-commerce ecology

Un December 2020, Portaldot asset management system goes live

In January 2021, Portaldot International Club was established

In April 2021, Portaldot POA test network goes live

In May 2021, Portaldot POS test network online

In June 2021, Portaldot Network 1.0 goes live

In July 2021, Portaldot Eco Plan

In June 2022, Portaldot Network 2.0 goes live

In July 2022, Portaldot Grand Voyage Program

VIII. Risk Warning

Policy risk: The current regulatory policies of various countries for blockchain projects and various segments are still different, and there is a certain possibility of loss of participants due to policy reasons; among the market risks, if the overall value of the digital asset market is overvalued, then the investment risk will increase, and participants may expect the growth of swap projects to be too high, but these high expectations may not be realized.

Risk within the team: POT has gathered a team of talents with both vitality and strength, attracting senior practitioners in the blockchain field, technical developers with rich experience, etc. In the future development, the possibility of core personnel leaving and conflicts within the team leading to the negative impact of the project as a whole cannot be ruled out.

Inter-team risk: At present, there are many teams and projects in the field of blockchain technology, and the competition is very fierce, with strong market competition and project operation pressure. Whether a project can break through among many outstanding projects and be widely recognized is not only linked to its own team ability and vision planning, but also influenced by many competitors and even oligarchs in the market, and there is a

possibility of facing vicious competition among them.

Project technical risks: First of all, this project is based on cryptographic algorithms, and the rapid development of cryptography is bound to bring potential risks of being cracked; Secondly, technologies such as block chain, distributed account book, de-centralization and disagreement with tampering support the development of core businesses, and the ecological public chain team cannot fully guarantee the landing of technologies. In the process of updating and adjusting the project again, loopholes may be found, which can be made up by issuing patches, but the degree of impact caused by loopholes cannot be guaranteed.

Security risks: In terms of security, the small amount of individual backers, but the large total number of people, also puts high demands on the security of the project. Electronic tokens are anonymous and difficult to trace, which can be easily exploited by criminals, or hacked, or may involve criminal acts such as illegal asset transfers.

IX. Disclaimers

This document is for the purpose of conveying information only.

The contents of the document are for reference only and do not constitute any investment buying and selling advice, solicitation or invitation to sell shares or securities in POT and its related companies. Such offers must be made by means of a confidential memorandum and must comply with relevant securities and other laws. The contents of this document shall not be construed as compelling participation in a swap. Nothing done in connection with this White Paper shall be construed as participation in a swap, including a request to obtain a copy of this White Paper or to share this White Paper with others. Participation in a swap means that the participant has met the age criteria, has full civil capacity, and that the contract with POT is genuine and valid. All participants enter into contracts voluntarily and have a clear and necessary understanding of the POT prior to entering into a contract. The POT team will continually make reasonable attempts to ensure that the information in this white paper is true and accurate. The platform may be updated during the development process, including but not limited to the platform mechanics, tokens and their mechanisms, and token allocation. Parts of the document may be adjusted accordingly in the new version of the white paper as the project progresses, and the team will make the updates available to the public by posting announcements on the website or in the new

version of the white paper. Participants are urged to obtain the latest version of the white paper in a timely manner and adjust their decisions in accordance with the updated content.