



Acute Angle blockchain smartphone

intelligent terminal node for the 5G era

Yellow paper

TABLE OF CONTENTS

1. Mobile phone development brief.....	3
1.1. The development from "Big Brother" to "function machine".....	4
1.2. The transformation from "function machine" to "smart machine".....	5
1.3. A full-scale explosion in the era of smartphones.....	6
2. Smartphone market size and trend.....	7
3. 5G pushes blockchain and end computing convergence. Smartphones start a new era.....	8
3.1. Faster data transfer base station.....	9
3.2. Smarter information computing terminals.....	9
3.3. Blockchain and end computing are integrated on the smartphone side.....	9
4. Acute Angle blockchain smartphone - intelligent terminal node for the 5G era.....	11
4.1. Acute Angle hardware series - Node mobile phone.....	12
4.2. Node ID - User ID.....	12
4.3. Node Store - the next generation autonomous app store.....	13
4.4. Node Private System - Secure Encryption Space.....	14
4.5. Node Wallet.....	14
4.6. Real-time quotes.....	15
4.7. Application avatar.....	15
5. "Behavioral value" network based on the Acute Angle intelligent terminal node.....	15
6. Whole Network – wide network consensus.....	16
6.1. Token General Rules.....	16
6.2. Incentives.....	17
7. Vision.....	18

1. Mobile phone development brief

People are becoming more open. Only having a passion and ideas is definitely not enough, we need to rely on tools as well. The emergence of the mobile Internet has enabled smartphones to extend their functions as eyes, ears and mouth and become other new organs for human beings. Smartphones bring extended vision, and cameras can capture photos in the form of media to the digital world. Hearing: recording, voice AI, etc. Kinesthetic: sensing body movement (speed, direction), and even pulse rate in digital form. Placement: Positioning people in the physical world and sharing the position of other people or things with the digital world.

From the perspective of the development process of the global mobile phone industry, the phased changes of the mobile phone market were affected by several factors. Firstly, the intergenerational development of the communication network, from 1G to 4G and 5G, directly lead to the handover between the incremental market and the stock market; secondly, the change and development of mobile phone products, which developed from Big Brother to Functional Machine; the subversive transformation from functional machine to smart machine, as well as the upgraded development of pixel and screen optimization. Therefore, the mobile phone industry' s market growth was also different in different periods, from the initial function-driven market to performance-driven market, and further to develop to the smart market.

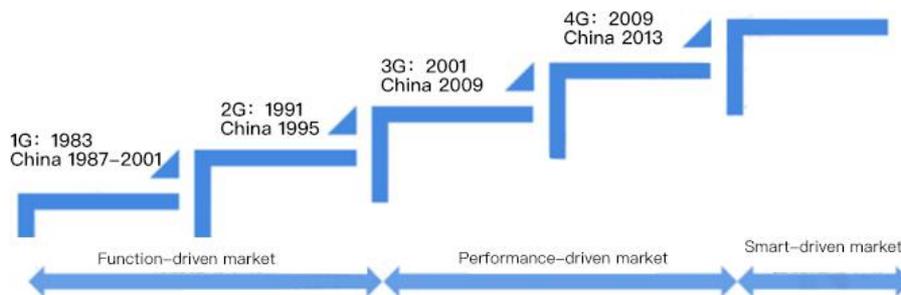


Figure 1 : Global mobile phone development history

In 1938, Bell Labs made the world's first "mobile phone" for the U.S. military. It was called the wireless portable telephone, or 1G Telephone, which used analog technology. In 1973, Martin Cooper of the Motorola Company invented the world's first civilian mobile phone (commonly known as "Big Brother"). "Dialogue in isolation" becomes possible anytime and anywhere.



Figure 2: The first mobile phone and the first "Big Brother" mobile phone

1.1. The development from "Big Brother" to "function machine"

1G to 2G has experienced the leap from analog communication technology to digital communication technology. Compared with the 1G era of analog signal technology, the greatest feature of the 2G era was entering the digital communication era: providing higher network capacity, improving the quality and confidentiality of calls, and providing roaming for users. It had strong confidentiality, high spectrum utilization, and could provide abundant voice and non-voice services. The mobile phone created the short message, Wap Internet access, and at the same time, the mobile phone also derived a series of functions accordingly. Short message functionality has become the mainstream mode of communication besides the telephone in the functional era. In addition to communication, people also use short message subscription services to obtain information, such as weather forecast and news bulletins.



Figure 3: Classical Functional Computer Diagram

With the simultaneous development of hardware technology, functional computers had gradually begun to carry more complex functions, such as music, cameras, and users could even surf the Internet using them, but limited to tens of kilobytes per second; mobile phones had not developed more user interaction functions. At that time, mobile phone downloading applications, music, pictures, was still in a quite traditional stage. It was necessary to connect the mobile phone and computer using data lines and do a series of downloading functions through the introduction of computers. At that time, there was a hidden trend that people would start to connect to the world through mobile phones. The popularity of functional machines made everybody's life richer, but it still could not meet people's needs.

1.2. The transformation from "function machine" to "smart machine"

With the increasing demand for mobile networks, the third-generation mobile communication networks must set new standards on the new spectrum and enjoy higher data transmission rates. At the beginning of the 21st century, the 3G world depicted by the telecommunications industry was: anybody could use mobile phones or other mobile devices (such as PDA) to make phone calls and surf the Internet at anytime, anywhere; besides transmitting voice, they could also transmit data, videos and computer games.



Figure 4: First-generation iPhone product

With the launch of the application market for the iPhone 3G, mobile phone users could select and download applications themselves for the first time through non-operator channels. Until then, the smartphones brought by the iPhone and Android laid the foundation for the popularization of 3G, and the era of mobile Internet really began. The iPhone reconstructed the logic of the product as a terminal. It not only performed

well in real-time, with accuracy and processing efficiency, but also carried voice assistant Siri, iMessage, an instant messaging software, and the iCloud cloud service. The ecosystem's improvement made the iOS no longer a simple terminal system, but also built a complete set of auxiliary solutions for the users lives.

Therefore, the era of 3G smart phones was a leap forward in the communications industry. Through mobile phones, people could hold videoconferences everywhere; the office was no longer limited to a fixed time and place. Shopping no longer required people to go to shopping malls to actually make purchases – mobile phone online shopping has brought greater convenience to life. Games, previously only possible to be played on the computer, could now become mobile games and bring a new experience to game players. People's lives have significantly changed because of the 3G era.

1.3. A full-scale explosion in the era of smartphones

4G network refers to the fourth-generation wireless cellular telephone communication protocol. The 4G system can make downloads at the speed of 100Mbps, which is 2000 times faster than that of the dial-up network and can meet the requirements of almost all users for wireless services – the speed of the mobile Internet has reached a new height.

What 4G brings to people is not only the high network speed, but also a series of mobile Internet applications such as better voice calls, more convenient mobile payments, car networking and so on, which will change people's work and life style again and become better. Due to this, we are also able to deal with other things on our mobile phones besides making phone calls and sending text messages, such as reading books, answering emails, writing articles, browsing news, taking photos, socializing, playing games, booking airplane tickets, making payments... The mobile phone contains infinite possibilities and almost bears all the answers for essential and non-essential needs in life.

Generally speaking, the service data provided by the 4G network is mostly a full IP network, so it can meet the development needs of mobile communication services to a certain extent. However, with the rapid development of economy, society and Internet of Things technology, new mobile communication services such as cloud computing, social networking and vehicle networking are emerging, which put forward higher-level requirements for communication technology.

2. Smartphone market size and trend

With the rapid development of electronic information technology in China, the mobile phone market has undergone tremendous changes from the functional mobile phone to the smart phone today. In addition, with the acceleration of the mobile Internet process, the popularity of smart phones has become inappropriate.

From 2011 to 2017, the number of smartphones in China increased from 200 million to 1.07 billion. However, in recent years, the growth rate has shown a significant downward trend, indicating that the mobile phone market has gradually changed from the original incremental market to the stock market.

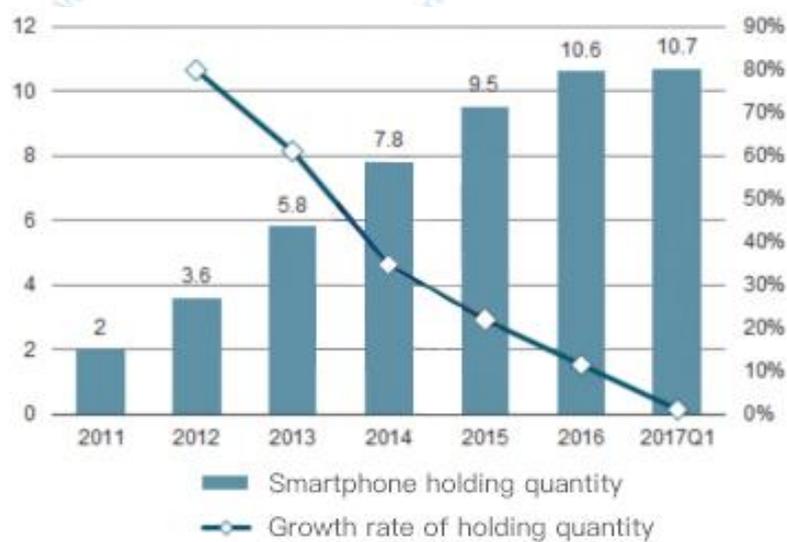


Figure 5 : 2011-2017 Q1 national smartphone ownership (100 million units) and growth rate

Looking back on the development of smartphones, the initial explosive growth of smartphones comes from the replacement of functional phones. The essential difference between smartphones and functional phones lies in the abundant APP resources, which makes mobile phones transcend single calls and short messages as functional carriers with social interaction at the core.

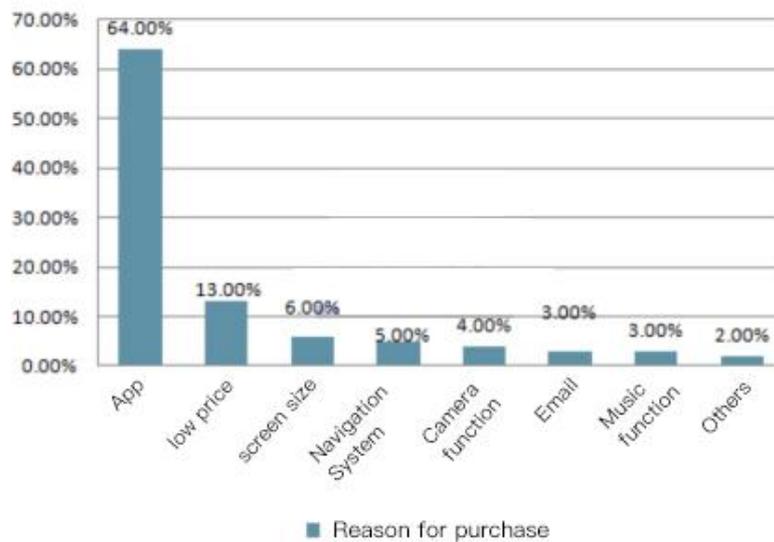


Figure 6 : Initial survey of smartphone growth, survey of user purchase reasons

Over the past few years, the dividends of smart phone switching, communication standards upgrading, Internet explosion, low-line consumption upgrading and other industries which continue to drive the growth of China's mobile phone market have faded out, while the new strong-driving dividend has not yet been formed. At the same time, the combination of stock saturation, subsidies decline, rising costs and slowing innovation has led to consumer switching, enthusiasm continued to decline.

Nowadays, with the development and integration of the 5G network, blockchain and end computing technology, smart phones are at the starting point of "re-intellectualization". It will solve the limitation of large data and cloud computing in smart phone applications which depend on cloud services under the immature foundation of the Internet of Things. Intelligent computing is expected to arrive in the end application in advance. This also means that the new terminal which combines hardware and software, hardware from processor to sensor, software from system to APP, opens a new cycle to improve user experience and terminal reliability for smartphones.

3. 5G pushes blockchain and end computing convergence. Smartphones start a new era

Simply put, the 1G brought mobile calls and the 2G network added the ability to text messages and download content from the Internet. The biggest feature of the 3G was to improve the speed of data download, which brought the service based on data

transmission - mail, browsing the web page, sending pictures, etc. 5G is a mobile network with faster transmission and response speed.

3.1. Faster data transfer base station

The 5G network is almost 10 times faster than the current wireless speed. More intuitively, downloading a movie in one second is easy. It has greatly improved network performance in terms of speed, delay, number of connections, mobility, energy consumption and so on. If the 4G network meets more users' needs of chatting online and leisure on the mobile phone, the application of 5G network is far beyond the scope of mobile phone applications – it is the transformation of the transmission network. Massive Internet of Things, AR\VR, big data, end-to-end computing, blockchain technology, these services will expand the application of 5G network to a broader space.

3.2. Smarter information computing terminals

5G mobile phones are not only faster, but also smarter. They can identify who you are, and track and predict your behavior to judge your needs and respond to them. They can read your emotions, and predict and score through built-in sensors, cameras and emotional systems; analyze, process and respond to your emotions and moods, unlock to your voice and distinguish the difference between several tones, so as to respond to your needs or trigger built-in programs. Mobile phones will become more intelligent, humane and personalized with the support of 5G.

3.3. Blockchain and end computing are integrated on the smartphone side

5G technology solves the transmission of data, blockchain solves the trust and value attributes of data transmission. However, a large amount of data generated by intelligent terminals need to be computed at the terminal device quickly and converted into the equivalent digital value for transmission. The emergence of 5G makes these two problems easy to solve.

Blockchains can be regarded as a technology platform type, producing relationships. For example, 5G and end-to-end computing can improve production efficiency, so they are inherently not exclusive and can be combined. Future advances in AI technology for smartphones depend on the availability of data from various sources. Blockchains are designed to solve this problem by introducing the concept of point-to-point connection.

The existing data oligopoly is coming to an end, and a new era of open and free data is coming.

Nowadays, Facebook has built a highly mobile network of point-to-point information. Zuckerberg has publicly stated that one of the ways to decentralize is to encrypt messages and deliver them independently, which has a very wide significance for individuals. Facebook has recently officially released a white paper on its forthcoming stable currency, "Libra", which describes Libra's mission to build a simple, borderless currency and financial infrastructure for billions of people. While Libra's currency will be built on an open, secure and expandable "Libra Blockchain Network", the white paper also mentions that with the proliferation of smartphones and wireless data, more and more people will access the Internet and use Libra through these new services. Facebook's grand plan also proves the inevitability of the integration of blockchain technology and smartphone terminals from another perspective.

With the support of 5G and blockchain, the cooperation of end-computers is also needed. The essence of end-computing is to store and transmit data in the terminal node near the user, rather than in the remote cloud cluster. The focus of end-to-end computing is on the word "end". It can be simply understood that, on the basis of the original cloud computing, the computing task of the central node is shifted to the end node for calculation.

The combination of blockchains and end-to-end computing enables seamless convergence of online and offline application scenarios. Blockchains are naturally good at "dialogue" with machines, how to drive users to contribute to solve problems, how to quantify contribution value and how to manage contribution value. End-computing will inevitably bring new opportunities for blockchain because end-computing naturally coincides with the de-centralization essence of blockchain and more independent nodes are used to handle the entire business.

Some algorithms based on blockchains are deployed on multiple base stations, so that the corresponding speed can be improved, and data security and system robustness can be guaranteed – this can shorten the decision-making that took several seconds to less than one second. On the other hand, blockchains can be well integrated with traffic, such as encouraging users to share. From the point of view of the access point of mobile computing, it can be deployed flexibly to provide a computing platform for blockchains. In the 5G era, the decentralization of computing power to terminals, routers and base stations will also provide greater security when operating blockchains. In exploring the path of operator coverage and flow creation in the 5G era, how to maximize the value of

flow entrance depends on the successful experience with blockchains, such as their integration with the communication economy.

Computing tasks based on blockchain contracts can send and obtain results on and off the chain. It is very difficult for traditional Internet to get through this closed-loop service by using the digital tokens to pay for computing costs. In addition, end-to-end computing can also acquire and control the data ownership of smartphone terminals through blockchains. Through the de-centralized identity system of blockchains, personal data on smartphones can be managed.

4. Acute Angle blockchain smartphone - intelligent terminal node for the 5G era

Every day, we upload a large amount of behavior data to the cloud in real time through smartphones, but the value generated by this data is not owned by individual users. With the advent of the 5G era, the number of network connection devices increases greatly, and huge user data will be generated on the edge of the network. With the emergence of blockchain technology and end computing, data collection and processing will inevitably return to the terminal instead of the cloud, which can manage the processing of massive data near the device terminal and through the blockchain network. The transformation and transmission of data value has promoted the transformation of "information internet" to "value internet" .

Acute Angle Blockchain Smartphone is a blockchain smartphone based on 5G Network, End Computing and blockchain technology, which realizes the value of user's behavior. It uses the most advanced hardware and software. At the same time, it has built-in token incentive plan. Users can use this smartphone for daily use, application download, etc. There will be incentives for content sharing, data sharing, and the provision of products and services to the community. The user's reward will be stored properly in a secure digital wallet in the form of a token.

4.1. Acute Angle hardware series - Node mobile phone

The first hardware product of the Acute Angle hardware series is the Node mobile phone series. Node mobile phone series will be the first series of mobile phones launched in the Whole Network. In addition to the functional attributes of smartphones, Node mobile phone series can also get token rewards through daily use, and it uses face recognition, private system, asset security encryption and other functional settings have the attribute of security encryption for blockchain-related applications, which guarantees the security of blockchain assets and related information of users using the Node mobile phone series to the greatest extent. Most importantly, the Node series are the nodes of the Whole Network network, relying on the lowest layer of the blockchain. Layer technology integrates multiple functionalities into one – a new generation of self-owned application store Node Store, new generation of user identity certificate Node ID, Acute PS, blockchain wallet and so on. With the help of blockchain intelligent contract and perfect connection with various applications, the transformation, empowerment and transaction of user behavior value can be realized, which is the user's hardware access point to the blockchain world.



Figure 7 : Node Blockchain Mobile Phone Series Product

4.2. Node ID - User ID

Node ID is the only identifiable identity within the Whole Network nodes. It will allow access to each application, and these Node IDs cannot be tampered with or duplicated. Users can use Node ID as an account to login into applications and assure the anonymity

of account information. At the same time, Node ID asset information will be recorded on the chain to maintain the security of the users' personal assets.

4.3. Node Store - the next generation autonomous app store

The Node Store is a versatile mobile app store that combines the blockchain industry APP/DAPP to create a green, safe and vibrant blockchain ecosystem application cluster that solves the problem of not finding blockchain application download channels. It aims to solve the problem that users cannot download high-quality applications in one-stop shop – it uses technology integration, so that all users can quickly find safe, green and high-quality applications in the Node Store with download, and one-click installation and use.

The Node mobile phone series based on blockchain technology, through independent innovation, developed a “wake-up” payment system based on the Node Store. When users activate the Node mobile phones for the first time, will pay by waking up the Node Wallet and activating the reward acquisition function of the Node Store. In the Node mobile phone wake-up payment system, record are kept through the blockchain and each user's application download behavior, will bring real-time incentives for users, and real-time transfer of incentives to the user's blockchain Wallet for transactions, providing users with a convenient user experience of traditional Internet products, but through the Node Wallet, making it more secure, guaranteeing its decentralized asset storage and transaction in the blockchain.

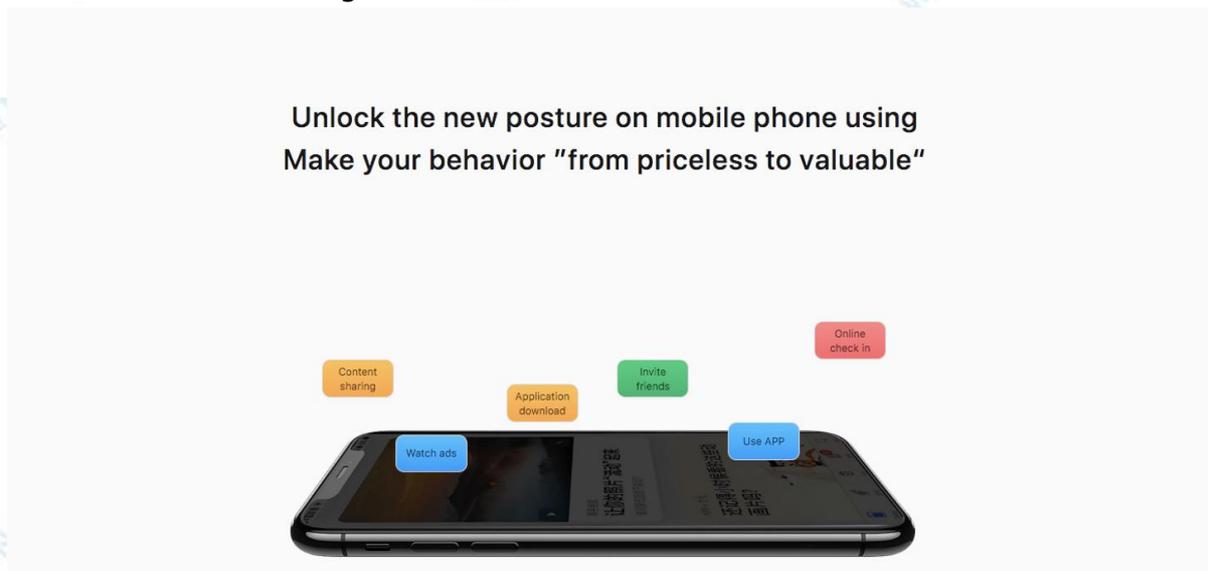


Figure 8 : Node Store features

4.4. Node Private System - Secure Encryption Space

The biggest function highlight of the Node Private System is the function of its private system, which upgrades the previous "hidden application" to "privacy space". Users can save the frequently used blockchain wallet, APP banking, various private key passwords in the private system, and establish a relatively independent operation of the main system interface. Operating space, including files and applications is independent, so as to protect users' privacy and data security. Users can set different passwords and switch between the two system interfaces, which further guarantees security for the mobile phone user.

4.5. Node Wallet

Node Wallet is a decentralized wallet APP that supports all currencies. It realizes multi-chain one-stop digital asset management. Users can enjoy safe, efficient and convenient blockchain asset services. In addition, when users activate other APP trading functions, they can directly carry out Node Wallet's "Payment Wake-up" to achieve extremely fast and convenient digital asset transactions.

Users activate the Node mobile phones for the first time. They will pay by waking up the Node Wallet to activate the reward acquisition function of the Node Store. At the same time, in the Node mobile phone wake-up payment system, through blockchain recording and reward, every user's application download behavior will bring real-time incentive for users and will be able to communicate in real time. Guaranteed incentive is transferred to the user's blockchain wallet for transaction and use, which not only brings users convenient experience of using traditional Internet products, but also guarantees users a safer decentralized blockchain asset storage and transaction through the Node Wallet.

Node Wallet+ U-key

The U-key built-in encryption chip of the mobile phone is safe and reliable, enabling users to stay away from the hacking virus and solve the problem of insufficient mobile payment security, thereby creating a healthy and safe payment environment for users.

4.6. Real-time quotes

4.6.1 Quotes Quick Display

Users can choose the exchange and currency to conduct real-time market matching, which can display the market dynamics in real time on the "boot screen"/negative screen. The bright screen can see the market, which is very convenient and avoids the complicated process of opening the exchange frequently every day. Time wasted.

∅ Support most exchanges

∅ Support custom token

4.6.2 Quote Alarm Clock

With the built-in "Market Alarm" function of the mobile phone, the user can set the alarm reminder price, activate the reminder, and give the strategy in time. Reducing the cost of scoring, relative to pending transactions, more real-time, the latest market is not missed.

∅ Support most exchanges

∅ Support custom token

4.7 Application avatar

The application is a mobile phone that can run multiple functions of the same software application at the same time, thus eliminating the cumbersome multi-account login switch. A mobile phone can easily realize the simultaneous login and use of multiple accounts of almost all applications such as social software, games, exchanges, etc. The work does not interfere with each other, entertainment, games double surprises, stable operation, greatly enhance the experience of users with specific needs.

5. "Behavioral value" network based on the Acute Angle intelligent terminal node

It is well known that the faster the data transmission speed is, the more nodes in point-to-point network there are. The Whole Network is a behavioral value network based on blockchain technology. Through the NODE token mechanism, ordinary users are encouraged to participate in the sharing and exchange of the Whole Network behavioral data. Therefore, each Node mobile phone will become a node of the Whole

Network. With more node users joining, the Whole Network will build a complete behavioral value network by linking node users, assets, applications and so on.

Through its low threshold, high participation, zero experience needed, simple operation and other advantages, we are committed to serving the Blockchain believers and enthusiasts all over the world. We follow the open, transparent and tamper-proof characteristics of blockchain technology and invite more users to participate. Distributing NODE incentives to behavioral data contributors through additional incentive mechanisms will encourage more users to enter the blockchain world and act as a resource node of the Whole Network, help the network to build blockchain node network architecture with wider coverage and more concentrated, lay the foundation for the Whole Network to weave aggregated resources into an end computing network that anyone in the world can rely on.

6. Whole Network – wide network consensus

In the Whole Network, each hardware is a node, each node will have more than 51% of the rights and interests generated by the behavior data contributed to the network. The Whole Network consensus is based on the new working mechanism of Value Internet, which proves that it will really solve the problem of transformation, empowerment and transaction of user behavior value in the new blockchain network. By recording the user's behavior on the chain, the link between human behavior in the real world and value transformation in the virtual world can be achieved.

6.1. Token General Rules

The Whole Network will, initially, issue a NODE token in the Ethereum chain and will build the lower layer of the public chain of the future ecosystem. NODE will be a community-wide incentive token and support the coordinated development of a variety of incentive mechanisms. NODE is like the "fuel" of the ecosystem. It promotes the operation of the "ecological engine" through the "burning of fuel" the operation of the ecosystem is kept stable.

NODE will be generated by user behavior and contributions to the ecosystem's construction, mainly through the use of the Node mobile phones to obtain NODE token rewards. Firstly, users get the Node phone's unique Node ID by burning a certain amount of NODE in the Node Store, which formally activates the behavior reward system and gives the Node mobile phones access to the NODE function. This is one of the main

behavior incentives of Whole Network: use is value; secondly, users communicate with each other. Developers' incentives and airdrops will also be awarded for downloading applications, viewing ads, and sharing content in the Node Store. This is the second incentive for the Whole Network's behavioral value: operation is value.

With the participation of more developers, NODE will be continuously exchanged in the Whole Network. Advertising, marketing, promotion and other expenses will be shared with the Whole Network users by means of token incentives. At the same time, more developers and users will join, and NODE will gradually reflect the value of circulation. Each time the NODE combustion mechanism is carried out, the total amount of 10,000,000,000 NODEs will be consumed as fuel to form a closed-loop flow for the production, use and consumption of NODE; NODE is a non-renewable resource of the Whole Network, not unlike coal, petroleum and other fossil fuels become a scarce means through continuous combustion and consumption. At the same time, with the reduction of a fixed amount of NODE and total deflation, the value of NODE will also continuously increase continuously. For this reason, the Whole Network will be kept stable and ensure that the computational mechanism is carried out in an orderly manner.

The total circulation of NODE is 10,000,000,000 pieces, of which the proportion of the mining pool is 65%. According to the rigorous market research and calculation mechanism, NODE is a proven economic model with market scale and significant application value. Each token corresponds to the equivalent value of the services provided at the time of issue.

*The distribution details of NODE in 《WHOLE NETWORK WHITE PAPER》

6.2. Incentives

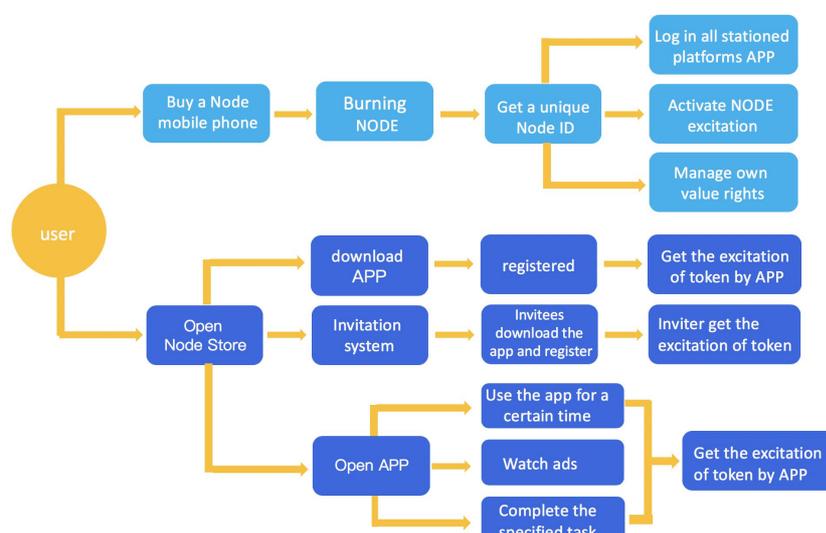


Figure 9: Schematic diagram of the NODE' s ecological incentive mechanism

7. Vision

With the support of 5G technology, blockchain technology and end-to-end computing have enabled the mobile smart terminal industry to become the driving force for the next round of technological and innovative changes in the mobile phone industry. With the continuous improvement of the performance of mobile processors and the integrity and reliability brought about by the continuous evolution of connection technology, many data computing and reasoning work, such as pattern matching, modeling and detection, classification, recognition and detection, have gradually shifted from the cloud to the mobile phone side.

In the 5G era, Node Blockchain Smart Phone can provide users with more applications with faster response, richer content and more intelligent cognition. The Node mobile phone, as an intelligent terminal node of the Whole Network Behavioral Value Network, uses NODE as a token incentive, achieves rapid value conversion and transmission of personal data on the mobile terminal with the support of end computing, the 5G network, blockchain and other technologies. In the future, it will further carry out the rapid deployment of global distributed node devices to jointly promote the Whole Network – a global consensus on behavioral value, where all participants can share the huge business value created through the use of Node mobile phones.

Today, 3.5 billion mobile phones transmit and upload user information like launching towers. With the popularity of blockchains and end-to-end computing technology, more users will participate in the next five years, and 5 billion netizens will shake the Whole Network world. Blockchain smartphones will also change human life and behavior by updating and upgrading, and helping humans migrate from the physical world into the virtual world – blockchain smartphones will become the hardware terminals connecting them. Global information and data will be a decentralized node network established by blockchain smart phones; the network achieves faster data confirmation, value empowerment and rapid flow, and more efficient and convenient cooperation for human development and progress.

Revision record

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