NePay Doc No.10021



Decentralized credit certificate mechanism and Value transfer network based on BlockChain technology

#### **Internet 2.0: Value Transmission Network**

Throughout their evolution, human beings have created countless things with their wisdom, which accelerate the development of human civilization. Especially after entry into the information age, creation happens in different fields all the time each day.

However,in the river of long history of human civilization, the birth of two things takes possession of special place, even any other creations can not equate to it, they were written words and money. The invention of words allows human beings to achieve reliable communication and inheritance at the spiritual level. But the invention of money allows human beings to achieve that at the material level. Without these two things, human beings, as a group, will not be able to gain the iteration and accumulation of knowledge and wealth, therefore, there will be no human civilization.

In fact,words and money are the more effective ways of human beings' communication. Word,as a way of interpersonal communication,carries the information; But money,as a carrier of value transmission,carries the credit. Since the birth of these two things,the means of dissemination of information and value exchange have not stopped the iterating and evolving.

Before the Internet was invented, the ways of information transmission among humans are varied, such as pictures, letters, and word of mouth, etc. However, the birth of the Internet has caused an earthshaking change in the way of information dissemination. With the progress of technology, the Internet is capable of transferring all the books created in the history of human before it was invented in one second. However, in the 69 years since it was invented, the Internet can only be used for information transmission, it seems that what people can do is only to speed it up.

But, as another important dimension, value, has never been directly transmitted at the technical level.

Until November 1st,2008,a book called "A Peer-to-Peer Electronic Cash System" has been published,the history of internet has quietly changed. In the traditional internet,A sends a file to B,he can still keep this file on

In the traditional internet, A sends a file to B,he can still keep this file on his own as it only transfers the copy of the file with current transport. The invention of Bitcoin has given the internet a new functionality. With the principle of cryptography, assets can be digitized into TOKENs, and each TOKEN is guaranteed to be unique and non-replicable. This allows people to transfer value through the Bitcoin network confidently, they do not need to worried about that the other party cheats on you with fraudulent payments (For example, someone may create a copy of TOKEN and send it to you).

# 1. What is NePay

NePay has solved out the problems between the payment processors, gateways, and financial institutions by developing a new generation of payment service. That payment service supports conversion operations between currency and assets. With the NePay network, everyone can use a fully dispersed, high-frequency and low-cost ways to conduct financial transactions such as payments, remittances, C2C transactions, cross-border B2B settlement, and other services as required.

# 2. The vision of NePay

Almost all trades on the Internet are required to process electronic payment information with the help of financial institutions as trusted third parties. Although those systems work well in most cases, they are still endogenously enslaved to the weaknesses of the "trust based model." We cannot achieve completely irreversible transactions as financial institutions will always inevitably appear to coordinate the disputes.

The financial intermediaries will also increase the transaction costs, and limit the minimum feasible transaction size and the daily micro-payment transactions. Meanwhile, cross-border / cross-currency remittances are also troublesome for all users. The current system is old, slow, expensive and unfriendly to users.

For a long time, there is no better solutions to the above issues until the invention of BlockChain technology.

NePay is committed to bring about changes to the traditional financial system by using BlockChain technology. From the letter of credit to settlement and from the middle exchange rate to the handling fee,all global users can enjoy the best financial service experience in this system.

# 3. The credit and settlement of NePay

### 3.1 Settlement system of NePay

3.1.1 The disadvantage of traditional settlement system

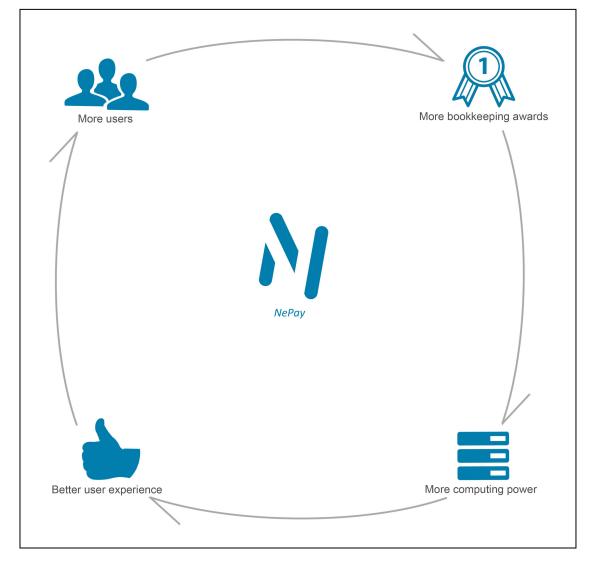
There is a fundamental coordination problem amongst payment processors, gateways, and financial institutions. For instance, a customer of a bank wishes to pay a merchant on 1 another network. Traditionally, there have been significant efforts in engineering around payment systems which are compatible across payment networks and financial institutions. These are usually constructed by creating a clearinghouse which manages the interchange, usually via a messaging network with either a central counterparty clearinghouse or nostro/vostro accounts. Examples include FedWire, CHIPS, SWIFT, consumer card payment networks, NSCC/DTCC, OCC, and ACH. These networks service different roles and functions, including local/national payments, international payments, credit, equities/asset exchange, and derivatives<sup>[1]</sup>. When users want to transfer funds from one system to

another, more cost of use will be increased while cross-network information exchanging. There is no doubt that the centralized service provider will pass the cost to the users. And with the ever-increasing bloatedness of the centralized data-bases, the time and cost of transactions will keep increasing.

At the same time, the centralized database has the danger of being leaked due to attacks. The leakage incidents of large-scale information that occurred at Equifax have also exposed the problems of centralized databases.

## 3.1.2 Solution based on NePay

NePay based on BlockChain technology brings about new possibilities to financial settlement systems. In the NePay network,more users will provide more bookkeeping awards,more bookkeeping awards will attract more computing power,and the increase of computing power will give users a better user experience.We got this inspiration from "SETI@home" and implemented it in a more efficient way using BlockChain technology.The situation that the amount of users is proportional to the transaction time in the traditional settlement system will be completely overturned.



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## 3.2 Credit system of NePay

3.2.1 The disadvantages of traditional centralized credit system

Currently,there are two popular forms in the traditional centralized credit system. One is based on the government agency, which assesses the credit of each citizen through the bank's credit record; The other is that the credit agency assess the ability of loan repayment of each citizen based on their assets. There are unavoidable drawbacks existed in these two models, the former may face security risk issue as the personal consumption ability and consumption level are hidden in the credit data. If someone owns those data, it is equivalent to own the world's most accurate positioning ads. In the extreme case of imagination, those data can even become a list of "most valuable targets" for blackmailers! The risk that the latter brings to users stems from the possibility of a low-credibility centralized system. Do you believe that credit agency will strictly protect your privacy rather than selling it to advertising companies for profit? Do you believe that each increase in your credit line is due to your increased repayment ability or good credit history rather than wanting to get more profits?

3.2.2 What the decentralized credit assessment systems based on NePay brings to your credit data security

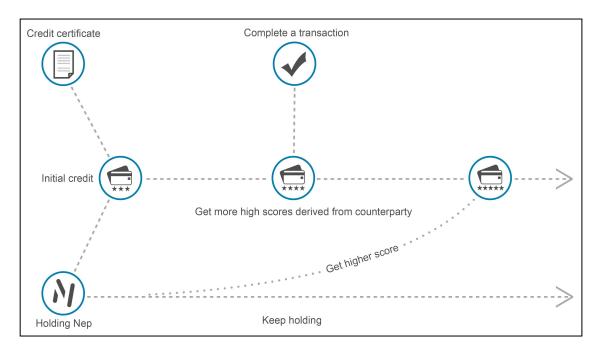
In the NePay network, user's personal credit data will be stored on the chain and can be viewed or modified with private key if needed. Because of the anonymity of BlockChain technology, no one can view your credit data besides the authorized person (usually the credit agencies that provide you with credit funds). Even though a hacker acquires those data regardless of cost, he still cannot view the content without a private key. All data will be held in the hands of the user, and cryptography principles provide perfect protection here.

# 4. NePay achieves the basics of decentralized credit certificate

We have designed a set of complicated formulas to calculate the credit of each user in real time, which is respectively derived from the amount of NEP in the users' wallets, the time that user owns NEP, the materials of users' credit certificate in the real world and the score from the counterparty after the transaction completed. In the NePay network, users can write their own credentials in the real world into the block, such as: KYC information, bank accounts, house property ownership certificate, TOKEN, and securities etc., and no one can be authorized to view or modify anything. When users need to use those data as a credit certificate, the agency will be authorized with a private key to access those data. All operations will be carried out in the chain in order to ensure the safety of private key with the encryption algorithm in any case. (Don't give your management private key to anyone under any circumstances!)

When a transaction is completed, the intelligent contract-based network will automatically update your credit score based on the scores made by the counterparty.

In general, users can obtain higher credit scores by enriching higher net worth credit documents, holding more NEPs for a long period of time, and gaining more high scores derived from counterparty.



#### 5. The incentive mechanism for users

In addition to offering an incentive for the nodes that contribute the computing power, There is also thorough user attraction and incentive mechanisms in the NePay ecosystem. As mentioned before, part of handling fees will be used as incentive for node. While in the NePay ecosystem, those who keep a good credit record for a long time will also receive another part of the incentive. For example, after consecutively completing the transactions in the NePay mall, users will obtain high scores from the counterparty, or continue to repay on time after using the NePay credit card.

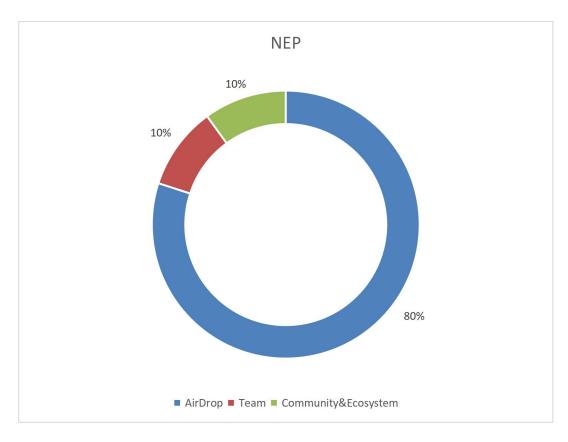
# 6. Advantages of Sidechain based on EOS Development for NePay

sidechain allows the TOKEN released based on different public blockchains to be exchanged in order to achieve the transfer of value of crosschain. The perfect compatibility of this technology makes it suitable for almost all financial products, it can even support micro-payments and real-world property registration! Based on the natural functionality of these side-chain technologies,we decided to develop sidechains on the most promising public chain EOS while considering the scalability of existing projects on the market and the threshold for the use of programming languages.



From Blockstream Moves Ahead with Sidechain Elements. Giulio Prisco<sup>[2]</sup>

### 7. Allocation of tokens



AirDrop:800,000,000; Community & Ecosystem: 100,000,000; Team:100,000,000;

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# How to get the AirDrop:

- 1. Send 0 ETH to contract address: 0x1f0480a66883de97d2b054929252aae8f664c15c (sending any extra amount of ETH will be considered as donations,and no given back)
- 2. The first one will get 8000 NEP tokens,and each time token is claimed,the next one will get less 0.001%.
- 3. Each address can only claim once.

# 8. NePay development plan

;	Stage	Time	MileStone	Effect
	1	2018 Q2	Publish White Paper Version 1.0	NePay concept forms and determines the basic technical route.
	2	2018 Q3-Q4	Migrate NePay tokens to EOS,and start working on implementing the NePay sidechain on EOS	Get faster processing and a better experience by using the EOS network
	3	2019 Q1	Finish the development of NePay sidechain	Speed up the trading speed of NePay network and get better stability,further experience.
	4	2019 Q3	NePay P2P trading platform and credit system	To achieve reliable P2P centralization of credit certification and discredit punishments in specific scenarios, and use Nep as an incentive to release the value of idle articles thoroughly.
	5	2020 Q1	Marketing for NePay products,search for partners,and open NePay standards	Continue to improve the use of existing services and experience, continue to expand the use of Nep range, enrich the ecology of NePay, to provide users with more and better diversified services.
	6	2020 Q2~	Continue optimizing NePay products based on user feedbacks	1.Keeping the underlying code of Nep optimized,in order to make NePay faster and more stable. 2.Continue to improve the use of existing services and experience,continue to expand the use of Nep range,enrich the ecology of NePay,to provide users with more and better diversified services.

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## References

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## **Disclaimer**

This document is for informational purposes only and is for reference only. It does not constitute advice,invitation,or solicitation of any investment in the sale of stocks or securities in the personal digital currency and its related companies. Such invitations must be made in the form of a confidential memorandum,subject to relevant securities laws and other laws. The contents of this document may not be construed as compelling any participation in the exchange. Nothing in this white paper may be considered as participation in the exchange,including the requirement to obtain a copy of this white paper or to share this white paper with others. Participating in the exchange means that the participants fulfill appropriate age criteria and possess full capacity for civil conduct. Contracts with NePay are real and effective. All participants voluntarily sign such contract and possess the clear and necessary understanding of individual currency before signing such contracts.

The team will continue to make reasonable attempts to ensure that the information in this white paper is true and accurate. During the development, the platform may be updated, including but not limited to platform mechanisms, tokens and their mechanisms, and token distribution methods. Portions of this document may be adjusted in the new white paper as the project progresses, and the team will release updates by posting a notice or a new white paper on the site. Please be sure to obtain the latest white papers, and make timely adjustments to your decisions based on such updates. The NePay team expressly disclaims all liabilities to participants for any loss resulting from (i) reliance on the contents of this document, (ii) inaccuracies of the information in this document, and (iii) any actions caused by this document. The team will spare no efforts to achieve the goals mentioned in the document, but due to force majeure, the team cannot fully promise to fulfill such promises.

NePay is an important tool for platform performance but not an investment product. Owning NePay does not confer any ownership,control,or decision-making rights over the NePay Platform. NePay,as a digitally encrypted currency, does not fall into one of the following categories: (a) currency of any kind; (b) security; (c) equity interests in legal entities; (d) stocks, bonds, notes, warrants, certificates or other grant, or any instrument granting any right. The value added of personal NePay depends on the laws of the market and the application requirements after implementation which may not have any value, and the team does not promise any value creation, and is not responsible for the consequences of any increase or decrease in value. To the extent permitted by law, for the damages and risks including, but not limited to, direct or indirect damages, loss of business profit,loss of business information,or any other economic damages arising from interests in connection with the particular purpose, the team takes no responsibility. The NePay Platform will comply with any regulatory regulations conducive to the development of the credit industry and industry selfdeclaration. Participants and their representatives will fully accept and abide by any such inspections. At the same time, all information disclosed by participants to accomplish such inspections must be complete and accurate. The NePay Platform has clearly communicated possible risks to participants. Once participants engage in the exchange, they confirm and acknowledge the terms said conditions and rules, accept the potential risks of this platform, and agree to bear the consequences.

# **Risk Warning**

There are a variety of risks involved in the NePay ecosystem, which require participants to carefully assess and be aware that such risks are borne by themselves.

Policy Risks: At present, the regulatory policies for the block-chain project and financing of the exchange are still unclear, so there is a possibility of participants suffering losses due to policy reasons. For the market risk, if the overall value of the digital assets market is assessed at a high value, then the risk of investment will increase, and participants may be subjected to overly optimistic valuation estimates, which may not be realized.

Regulatory Risks: Digital asset transactions, including personal digital currencies, are highly uncertain. As there is currently no strong regulatory regime in digital asset trading, there is a risk that e-tokens will skyrocket and be subjected to market manipulation by bankers. If individual participants lack experience after entering the market, it may be hard to resist the asset shock and psychological pressure brought about by market instability. Although academics, the government, media and so forth have suggested cautions from time to time, no official written supervisory methods and provisions have been released. Therefore, it is difficult to effectively circumvent such risks. It is undeniable that in the foreseeable future, official regulations will be introduced to constrain the block-chain and electronic token markets. If competent entities regulate the sector, the tokens purchased during the swap may be affected, including but not limited to fluctuations or limits in price and marketability.

Team Risks: The current block-chain technology team is engaged in many projects. Market competition and project operating pressures are strong. Whether the NePay project can stand out among those projects and be well-acknowledged depends on the team's own capabilities, vision, planning and other aspects, and also on competitors in the market and even oligarchs. During this process there exists the possibility of vicious competition. Based on the contacts accumulated by the founders for many years, NePay brings together a team with both vitality and strength, one which has attracted experienced practitioners in the block-chain industry and experienced technical developers. The stability and cohesion within the team are crucial to the overall development of this personal currency. In the future, we do not rule

out the possibility of core personnel leaving or conflicts within the team, which will negatively affect the overall project.

Coordination Risks: The founding team will spare no efforts to achieve the development goals set out in the white paper, and to extend the project. However, given the unforeseen factors in the industry development trends, the current business model and the overall plan may not cohere with market demands, resulting in unmanageable earnings. Also, since this white paper may be adjusted as the details of the project are updated, if the updated details of the project are not readily available to exchange participants or the public is not aware of the latest progress, information asymmetry will result, affecting follow-up development.

Technical Risks: First, this project is based on a cryptographic algorithm. The rapid development of cryptography will inevitably bring about the risk of cracking. Second, where technical support such as block-chain, distributed ledger, decentralization, tamper-proof records, and other such core technologies sustain the business developments of the project, the team cannot fully guarantee complete implementation. Third, during the project update, you may discover that loopholes exist, which may be fixed by releasing patch, but we cannot fully guarantee that no impact will be caused by such vulnerabilities.

Security Risks: In security, the number of individual supporters is small, but the total number of users is huge. This also places high require-ments on project security. Electronic tokens are anonymous and difficult to trace, so they can be easily used by criminals and hackers, or may be used in transferring illegal assets.

Current Unknown Risks: As block-chain technology and the overall industry continue to evolve, the NePay project may face unforeseen risks. Before participants make decisions, we invite them to fully investigate and understand our team's background, gaining a full understanding of the project and its framework and goals, and reasonably adjust their own vision to rationally participate in the exchange of tokens.