

NetM

Blockchain Network Protocol

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Abstract

New disruptive technologies and concepts that have developed in recent times have meant to breakthrough in the modern economy and new businesses. An online peer to peer payment network with a native electronic currency allows online payments without third parties involved. In a world of smart contracts, decentralized transactions and new generation protocols in a tokenized economy immediate negotiations and payments are necessary. The integration with different transactional networks offers a service based on blockchain that allow people to make payments or send money abroad with any technology. Through the coin NTM and token NTMX as a unit of value and parity it is reduced the collateral impact of save value of transactions and payments by the connection with markets in real time solving the difficulties encountered in the exchange with different blockchain technologies with their counterparties for the trade in goods and services.

1 Introduction

In a world of decentralized transactions NetM integrate different transactional networks with multichain approaches and the own protocol network that offers a service based on blockchain that allow people to make payments or send money abroad just using any platform and blockchain network. Through the native coin NetM (NTM) and NetM Token (NTMX) in different protocol as a unit of value is possible connect with any technology with reduced the collateral impact of save value of transactions and payments by the volatility of the market for the trade in goods and services. In the last twelve years, the use of blockchain technology has spread across the different verticals of the industry and has boosted the appearance of new players in the financial sector. Fintech exist of many kinds and of all types but comparing the impact of new technologies with the penetration of mobile phones and internet in the general population there is still much to be done in decentralized finance and network infrastructure. The use of blockchain technologies are still not the majority of services consumed by the general population due to their initial barrier of complexity in learning their management and even the different existing initiatives still have flaws in the services focused first on the end user even further for unattended population. In developing countries there is still a gap in financial services and coverage. Since 2015 the concept of NetM has been developing according to the

needs of a specific market with everything related to the network and its native electronic currency with proofs of concept with some alliances. NetM is a distributed payment network that functions as a universal payment system with its native electronic currency NTM that connects the different transactional networks. Allowing to send and receive money more easily and economically. It democratizes transactions and extends the coverage of transactional infrastructure for a complete interconnection between businesses and people based on the principle of non-discrimination in electronic transactions.

1.1 Cryptocurrency

A cryptocurrency is self-sufficient, not relying on any other cryptocurrency to function and requiring its own software for a digital exchange system in which cryptography is used to generate and distribute currency units. This process requires distributed verification of transactions without a central authority. Transaction verification confirms transaction amounts, and whether the payer owns the currency they are trying to spend while ensuring that currency units are not spent twice. This verification process is also called mining with consensus algorithm proof of work or distributed validation with holding balance in consensus algorithm proof of stake.

Cryptocurrencies lack a central authority to mediate transactions because they were designed as peer-to-peer systems. They rely on miners to validate transactions require strong, secure mining algorithms.

Each owner transfers the coin to the next by digitally signing a hash of the previous transaction and the public key of the next owner and adding these to the end of the coin. A payee can verify the signatures to verify the chain of ownership. Add records of past transactions to the distributed ledger allow users to reach secure, robust consensus for each transaction.

The future possibilities of this new technologies have driven most of the current market capitalization, and this is likely to remain the case until a certain measure of price stability and market acceptance is achieved. Apart from the declared price of cryptocurrency, those invested in it appear to be relying on a perceived “inherent value” of cryptocurrency. This includes the technology and network itself, the integrity of the cryptographic code and the decentralized network.

For consumers offer cheaper and faster peer-to-peer payment options than those offered by traditional money services businesses[1], without the need to provide personal details as with continue to gain some acceptance as a payment option.

Carry groundbreaking potential to allow consumers access to a global payment system—anywhere, anytime—in which participation is restricted only by access to technology, rather than by factors such as having a credit history or a bank account.

1.2 Token

Tokens are units of value that blockchain-based initiatives develop on top of existing blockchain networks. While they often share deep compatibility with the cryptocurrencies of that network, they are a wholly different digital asset class. Tokens are built on an existing blockchain protocol. Cryptocurrencies have their own blockchains.

The tokens can serve a multitude of functions on the platforms for which they are built, including participating in decentralized finance (DeFi) mechanisms, accessing platform-specific services, and even playing games. There are several widely used token standards for development, that can interoperate with huge ecosystem of decentralized apps. The new tokens are developed to address blockchain’s expanding use cases.

Typically, tokens are programmable, permissionless, trustless, and transparent. Programmable simply means that they run on software protocols, which are composed of smart contracts that outline the features and functions of the token and the network's rules of engagement. Permissionless means that anyone can participate in the system without the need for special credentials. Trustless means that no one central authority controls the system; instead it runs on the rules predefined by the network protocol. And finally, transparency implies that the rules of the protocol and its transactions are viewable and verifiable by all.

Much like digital coins, tokens also enable the transfer of value. However, in most cases, a digital token does have some additional powers than being a medium of payment[2].

Different types of digital tokens exist for various purposes.

Token NTMX has multiple use cases, but within the NetM ecosystem, it is used as a utility token that allows users to bridge NetM network with different networks and receive discounts when paying for their trading fees.

1.3 Oracles (Blockchain)

Blockchains and smart contracts cannot access data from outside of their network. In order to know what to do, a smart contract often needs access to information from the outside world that is relevant to the contractual agreement, in the form of electronic data, also referred to as oracles. These oracles are services that send and verify real world occurrences and submit this information to smart contracts, triggering state changes on the blockchain. A blockchain oracle is any device or entity that connects a deterministic blockchain with off-chain data. These oracles enter every data input through an external transaction. As blockchain middleware they are the bridge between the two worlds.

Since oracles are third-party services that are not part of the blockchain consensus mechanism, they are not subject to the underlying security mechanisms that this public infrastructure provides. One could replicate "man-in-the-middle attacks" standing between contracts and oracles.

The robustness assurance of this layer is of utmost importance. Different trusted computing techniques can be used as a way of solving these issues.

A common solution is a decentralized oracle network as a group of independent blockchain oracles that provide data from an off-chain source and brings it on-chain to smart contracts. Oracles also provide a way for blockchains to see into each other. This is known as interoperability, and is an important next step as well.

1.4 NetM

NetM is an open source peer-to-peer cryptocurrency and blockchain network, oriented to corporate and personal use with its own built-in currency (NTM) to compensate with other assets and commodities, public released to provide liquidity and exchange between digital assets, a way of save value in the network.

The distributed payment network functions as an universal payment system with its native electronic currency (NTM) that connects the different transactional networks. Allowing to send and receive money on internet more easily and economically. It will democratizes transactions and extends the coverage of transactional infrastructure for a complete interconnection between businesses and people. NTM is the native coin used on the NetM Network to compensate and encourage liquidity between markets and mining nodes to keep the chain operate normally. NTMX token is the digital asset basket by NTM to bring a bridge with different networks. The native network provide a global infrastructure enabling new markets, digital assets and commodities connection for doing businesses and ability to find liquidity in efficient

way in real time. A global ecosystem for exchange digital value over internet.

2 Problem

A problem to solve is that the organizations have become dependents of their own private networks and there's no have a complete integration with other transactional networks. The interoperability generally requires centralized systems that could be slow, expensive to use, to integrate and maintain into organizations. This limits the interconnection between transactional corporative networks and affects the service coverage for end customers. In the current market there is a clear opportunity to improve the infrastructure of payment and transactional networks. Oriented to promote financial inclusion trough transactional products, in an ecosystem that needs integration and inclusion.

3 Solution

A solution is an universal payment network with a native electronic currency (NTM) that only works with NetM that connects the different transactional networks. Allowing to send and receive money on internet more easily and economically. It will democratizes transactions and extends the coverage of transactional infrastructure for a complete interconnection between businesses and people. To implement payments and transactions in the network are made to addresses, which are based on digital signatures. They are unique identifications over the network. Every single unit with NetM has a fixed price to NetM Token a digital asset issued in other networks. In the NetM network it was programmed over 100 Billion of units and an annual inflation rate of 5%. Near 100 Billions coins are restricted to the public markets and are not allowed to trade with BTC, ETH or another digital currecy due fundamentals of core business. For the next 55 years will be mined 200 Billion coins and only 200 million of tokens exist outside the network. This is to provide a balance between the inflationary aspect of the mineable coin and the ratio of volume with the equivalence in issued tokens. Each (NTMX) NetM Token will be equivalent to 1000 units of (NTM) NetM coin. Products and services are based on this equivalence of utility.

4 System Description

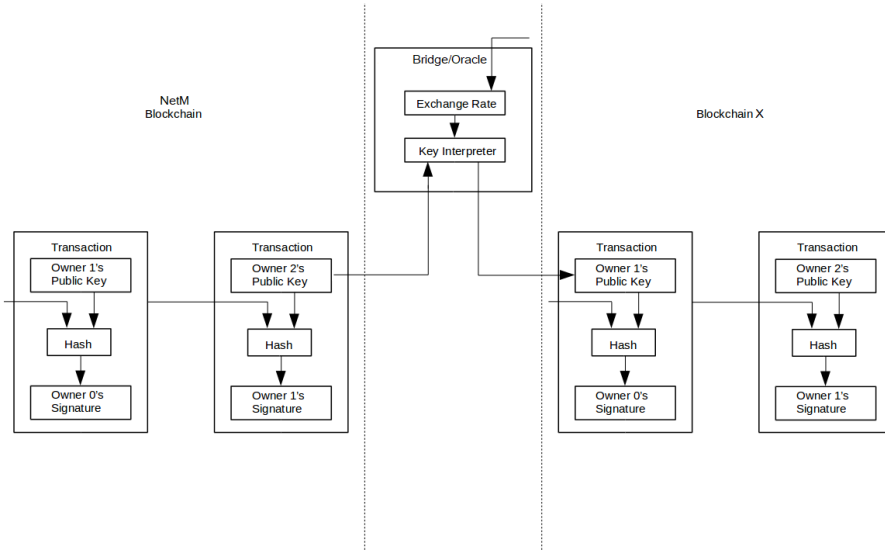
The NetM network and platforms around it are pioneer in distributed communication on the use of financial technologies such as blockchain. It works with the use of decentralized peer-to-peer protocols, facilitating the delivery of transactional messages, eliminating the need for a central server that is backed by cryptographic signatures to guarantee its security. The software is designed with a modular architecture to offer different services. The architecture is extensive with the use of APIs to facilitate integration with other systems.

Blockchain is the core technology which is based the NetM network, it's nothing more that a public record of transactions in chronological order in a shared database. Like Bitcoin, Litecoin and other alternative digital currencies with well tested technology. A transaction doesn't include name or email address. Simply contains the source address in the network, the destination address and the amount. Transactions are recorded in the NetM blockchain, a new block is added to the blockchain with a targeted time of 60 seconds, a transaction is usually considered complete after 6 blocks, or 6 minutes, a design considered for transactions and micro-transactions through faster and smaller blocks gives good performance for processed

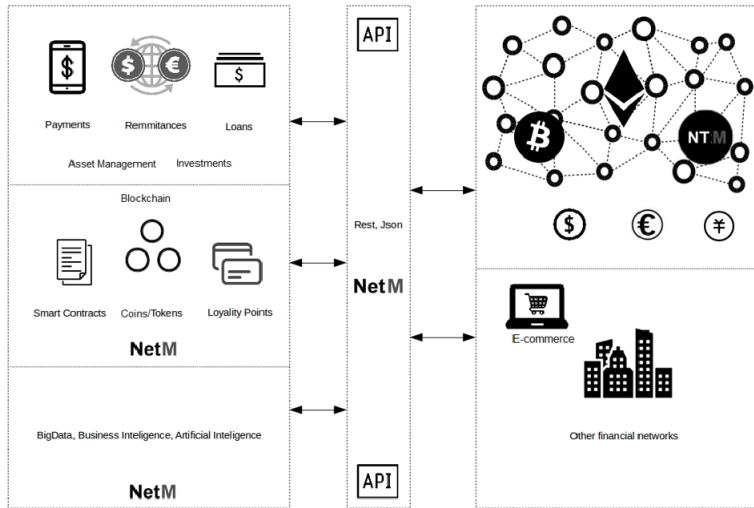
transactions over time. This is achieved by facilitating the generation of an electronic asset exchange operation between the actors by combining a platform architecture designed around modular services, which allows the introduction of new features and services. By making extensive use of technology to deliver better services predominantly through Internet-based platforms, it all aligns with the main vision. This enables the role of service provider to the transactional technology market at a lower cost than traditional operations, which can become relatively less profitable due to their high traditional operating costs[3]. Leveraging scalable infrastructure through technology-based systems to better interact through online platforms, with lower operating costs and a different approach to marketing with the products increases revenue through aggressive pricing strategies and more revenue streams.

4.1 Architecture

All of services in the network are made to run on NetM Blockchain or with NetM Token in order to give an unique transactional experience more efficiently than ever and processing transactions with cryptocurrencies in compensated way at the both ends.



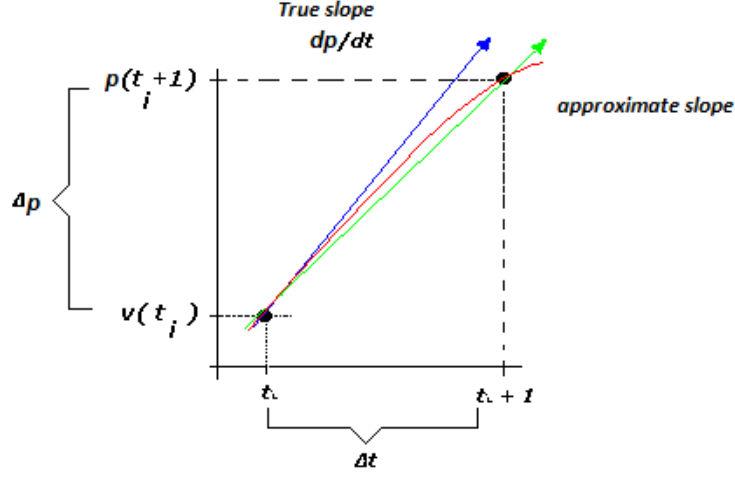
To facilitate this without breaking the order of the blocks, transactions are handled with oracles driven by the unique identification of each account as the public key [6] can then be associated and integrated in a single time operation at certain action between ledgers.



NetM has improved transactions and micro-transaction design lowering fee costs and reducing confirmation times, enhancing financial inclusion and providing consumers and businesses with new and safe services. The full-dimensional network and platform integrates the products/services of third parties to enrich product and service offerings. It is a comprehensive digital financial service technology with applications involving cross-industry co-operation and expansion of the value service chain. In particular, with the transformation into the multiple-channel model, businesses interaction with customers has been trending from single to various touch-points. By utilizing online resources and combining distributed technologies and high availability, the business sustainability and response speed will be elevated. The solution is a mix of public infrastructure with the use of Big Data and Business intelligence supported by cloud computing would bring in advance analytics, such as detecting if a client is logging in illegally from their commonly used addresses and securing online transactions. The cloud technology has satisfied technological needs in terms of innovation and has unlocked the restrictions stemming from the long time gap and lack of flexibility in the traditional model, supporting the decision-making process and concentrating on potential business opportunities. Medium to large-sized businesses enjoy a more mature IT system, especially in terms of security and efficiency. Considering the needs to lower costs, it can more easily adopt the public platforms to develop economies of scale. Big Data can help with regulate customer flow, give treasury suggestions, and improve channel management efficiency. Data analysis not only helps with customer classification, personalized business strategy, and customer loss flow, but also with advanced model/signal detection and exploration of unstructured data. Artificial Intelligence (AI) has become sought-after knowledge as businesses are apt to learn in the growing kingdom of automation[4], machine learning, robotics, analytics and more. The efforts are concentrated on adopting AI for task automation, consistent customer services, deep-dive behaviour analysis, as well as efficient fraud finding. Also need to manage the risks and concerns that arise along the journey of transformation[5].

4.2 Calculations

The relation settlement model is based in an equation that expresses the characteristics as a function of the mining and time for a given time of liquidation in token.



$$\frac{\Delta p}{\Delta t} = \frac{p(t_i+1) - p(t_i)}{t_i+1 - t_i} \quad (1)$$

Delimiting the behavior of the model to estimate a metric the function is defined.

$$f(x) = \begin{cases} 0, & x \leq 0 \\ g(x), & x > 0 \end{cases} \quad (2)$$

For the liquidation process which is based in a correlation[7] function between the amount of coins and the issued tokens.

$$g(x) = \frac{n \sum xy - \sum x \sum y}{\sum x^2 - (\sum x)^2} x + \frac{\sum y - a \sum x}{n} \quad (3)$$

Where the coefficient determines if there is a relationship with a certain probability[8]

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2} \sqrt{\sum (y - \bar{y})^2}} \quad (4)$$

$$0 \leq r_{xy} \leq 1 \quad (5)$$

It is checked if it is possible that this coefficient is found within the distribution by calculating the number of deviations[9] for a certain level of significance and degrees of freedom.

$$t = \frac{r_{xy} - 0}{\sqrt{\frac{1 - r^2}{N - 2}}} \quad (6)$$

Allowing a measure of correlation risk with the possibility of expected financial variations.

4.3 Key Value Propositions

Transactions

A P2P network handles transactions, balances and issuance through the proof-of-work scheme. Coins are currently traded for fiat currencies, bitcoins, other cryptocurrencies and tokens with various commodities mostly on online exchanges.

Addresses

Payments and transactions in the network are made to addresses, which are based on digital signatures. They are unique identifications over the network. Crations of many addresses needed is possible without spending any coins.

Confirmations

Transactions are recorded in the NetM blockchain, a new block is added to the blockchain with a targeted time of 60 seconds, a transaction is usually considered complete after 6 blocks, or 6 minutes, a design considered for transactions and micro-transactions through faster and smaller blocks gives good performance for processed transactions over time.

Wallet

The wallet is offered by the developers and maintainers for different systems. The functionality in the wallet is standard like bitcoin wallets.

Exchanges

There are public exchanges to buy NetM - (NTM) and token NTMX token on DEX with different pairs.

Price

The live coin NetM - (NTM) and token (NTMX) price is available on multiple indexes.

Transparency

All operations are decetralized with NetM tokens and NetM coins leads to transparency. Every transaction is processed and recorded using blockchain technology in which traceability of actions are the core. To ensure the greatest level of independency, the network will be working with, but not subject to, all leading of digital services of any kind in the form of a partnerships for the benefit of the users in the ecosystem.

Risk Management

Scalable in the world, in real time, practically free. Its distribution scheme is public allowing a hybrid model to participate in several points of contact with different markets. The Risk Management, Money Laundering and Financing of Terrorism with the public markets of NetM is a strong piece of the ecosystem that filters and ensures a controlled environment. Each business is responsible of the all stages and elements of the risk management system of money laundering, KYC and others. The NetM market that uses the network and all transactions will be recorded in a public and constantly synchronized database, which is called blockchain.

Simplicity

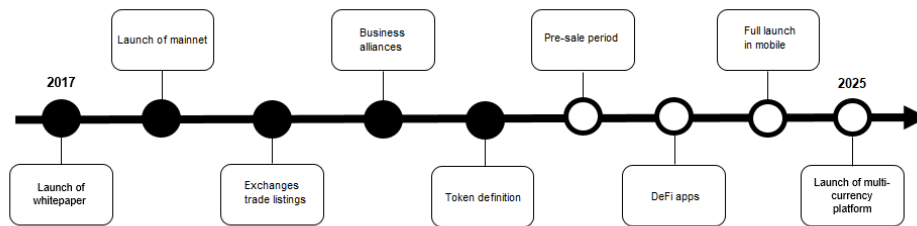
With the philosophy of easy use from the stage of the design of the ecosystem every service and product is designed with an interface focused on the usability of user interaction. It is worth mentioning that all transactional core technology is fully compatible with traditional channels and cryptocurrency networks.

Incentivized Business Model

NetM Token (NTMX) will be used primarily on, but not exclusively to, exchange features for digital assets. NTMX certainly offers other utilities for decentralized finance and staking properties while NetM coin (NTM) is used for bring indepeny in blockchain fees cost and trasaction layer operation, Both units of value includes premium features on NetM platform and network ecosystem or fee of discounts in activities held by NetM team. Also is used for benefits and rewards in products and services within the platform and uses in services of our partners. It intends to serve a basic functionality as bridge with transactional worlds and benefits distribution between early adopters, or in our terms, users and business. Specifically, NetM token holders will be benefited greatly in terms of discount on premium services, in which the fee will be reduced if paid by NTMX token. Most importantly, it is of great significance to note at this stage NTM coin and NTMX token can also be used in the applications to activate extra discounts or premium and exclusive features.

5 Roadmap

The NetM network and all ecosystem platforms are released in phases, described in the following sections. This phased rollout accelerates market penetration while allowing new features to be introduced and monitored incrementally. The intended approach is to decentralise services as it is built, which will be accompanied by a gradual increase in new system features. This provides a balance of safety and functionality until the ecosystem is fully mature.



6 Token Allocation and Fund Usage

Token Allocation and Fund Usage in the sale period, a total amount of 200 million NTMX shall be issued. Out of that amount, 100 million NTMX tokens will be offered publicly at a fixed price of 0.01 USD per unit. The allocation and fund usage is as shown below. It should be noted non-public tokens will be subjected to a 2-year silent period, effective from sale period. Similarly, pre-arranged tokens will be legally bound by a 1-year silent period. Nevertheless, a specific proportion of tokens allocated to be used in business partnership and rewarding program (see below) will not be constrained as such.

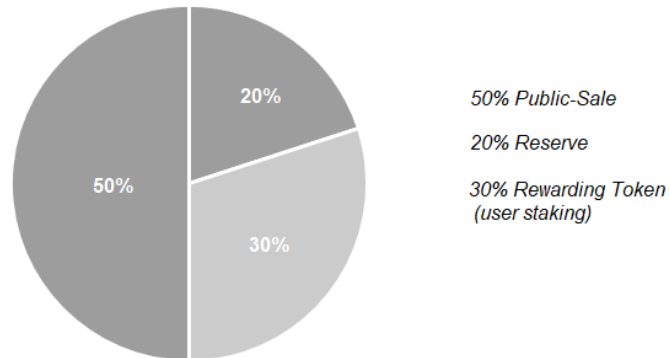
NetM Token

Token name: NTMX

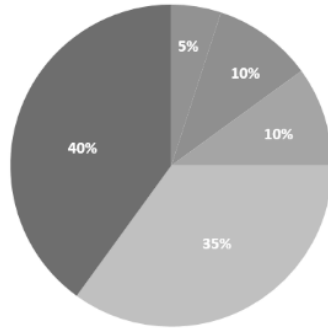
Tokens for sale: 100.000.000

Tokens max supply: 200.000.000

Allocation Chart



Fund Usage Chart



40% Platform and Protocol Development

35% Marketing and Business Development

10% Operating Expenses

10% Research & Consultancy Fee

5% Reserve fund

7 Conclusion

NetM is distributed payment network protocol that functions as an universal payment system with its native electronic currency (NTM) that connects the different transactional networks. Allowing to send and receive money on internet more easily and economically. It will democratizes transactions and extends the coverage of transactional infrastructure for a complete interconnection between businesses and people. The transactions are routed and associated to all address in the network. All the necessary rules and incentives can be applied with token definitions in other networks as connection mechanism.

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