NATIVE

Draft 0.9

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Legal Notice

You should carefully read and fully understand this White Paper and any updates, including the disclaimer and healthcare legal and regulatory considerations provided at the end. Additional risks associated with the project are described in other documentation provided by Native, which all potential purchasers should carefully read and fully understand prior to purchasing tokens.

This White Paper describes the current vision for the Native platform. While the project team intends to attempt to realize this vision, whether it does so will depend on quite a number of factors and be subject to quite a number of risks. It is entirely possible that the Native platform and any other products or services described in this White Paper will never be implemented or adopted, or that only a portion of the vision will be realized.

The authors and all other parties associated with this White Paper do not guarantee, represent or warrant any of the statements in this White Paper, because they are based on our current beliefs, expectations and assumptions, about which there can be no assurance due to various anticipated and unanticipated events that may occur.

Please know that we plan to work hard in seeking to achieve the vision laid out in this white paper, but that you cannot rely on any of it coming true. Blockchain, cryptocurrencies and other aspects of the underlying technology and markets are in their infancy and will be subject to many challenges, competition and a changing environment. The project team will try to update our community as things grow and change, but undertake no obligation to do so.

Introduction

The first recorded use of fiat money occurred in China around 1000 A.D. It was a bronze shell called the Chao. Since that time, government backed currencies have dominated the global economic landscape. These systems can function with the support of their users as long as the authorities in power are catering to the needs of the citizens and building efficient societies.

In 2008, around the time of one of the largest financial crashes in history, the Bitcoin white paper was released, which proposed the first fully decentralized peer to peer monetary system not reliant on government or bank intermediation. Shortly after, alternative cryptocurrencies were developed with slight modifications to the Bitcoin code. More technical implementations came into existence like Ethereum which enabled the execution of smart contracts on top of the ability to transfer and store value.

As of April 2018, the total cryptocurrency ecosystem is valued at over $300B. This includes over 1,500 cryptocurrencies and tokens, and over $4B was raised in token launches alone in 2017. For 2018, launch numbers are almost already outpacing 2017 totals. Additionally, traditional finance institutions such as Goldman Sachs have taken an interest in the industry, and many other financial market participants have signalled interest to begin investing in the market.

The underlying technology powering Bitcoin and other cryptocurrencies is, at its essence, a ledger which does not rely on a centralized source to verify the validity of a transaction. Traditional ledgers, managed by banks and card companies, had one point of control and management. This leaves ample room for both internal manipulation and external attacks with only one point of failure. Distributing the transaction verification process across many agents mitigates this risk and ensures a higher degree of transparency through this authentication process.

Cryptocurrencies are not a solution with no pitfalls. The markets have enabled some individuals to act in a predatory way towards less financially savvy people. There have been cases of fraud and illicit market activity, as well as a lack of applicable utility for non-technical users. There are mitigation strategies to these challenges that are emerging. For example, some projects require stakes of capital to participate. If malicious activity is found, the staker can be penalized. Additionally, benevolent behavior can be incentivized.

The pace of development of emerging financial technologies is shifting power towards the individual. A semi-technical user is now able to utilize a financial system with equal or greater degrees of functionality compared to a traditional fiat currency

and banking system. These tools allow wealth to be stored in smaller ecosystems, or local currencies, and to be recognized within a global valuation framework.

Successful examples of local currencies include [BerkShares](#). Launched in September 2006, BerkShares is currently accepted by over 400 businesses and 8 local bank branches in the Berkshire region of Massachusetts. A primary goal of the currency is to keep money local and ensure that more growth is contained within the region's economy. The increase in locally circulated capital creates preferential conditions for local businesses, which is reflected in the locally sourced restaurant trend around the globe.

Friedrich Hayek , a Nobel Prize winning economist for his theory of money and how economies function, proposed in [The Denationalization of Money](#) that independent local currencies backed by a single reserve currency could create the conditions for a healthier global ecosystem.

The challenge faced today is that there is no protocol for non-technical communities to generate their own currencies, and no mechanism exists to value them against each other within a global framework. Additionally, systems that are too large in scope cannot effectively meet the specific needs of everyone utilizing that form of money. Finally, existing crowdfunding platforms have unreasonable fees, and don't enable contributors to have a liquid stake in the value created.

At Native we are building the next generation of community economics - one that is responsive to the needs and interests of the people. By simplifying the currency creation process, and providing an interface with a series of governance tools, the Native Protocol provides a path for any group of individuals to form an organization and effectively operate their own economies.

Native Overview

Native is a Protocol for communities to generate independent currencies backed by a liquid reserve, enabling them to effectively raise capital and organise local economies.

Native's mission is to provide a better system for community economics that represents both the needs and the interests of the people.

Communities, known as *Tribes*, are the building blocks of Native. Any physical or digital community focused around a common mission, interest, or goal can create a Tribe using the Native Protocol and coordinate efforts through building a decentralized local economic system for their Tribe. The Tribe Token for each community is generated and used as a Tribe's value representation as well as a transactable medium.

Native provides an intuitive set of tools for a Tribe to build projects, execute tasks, and lend to members. At its essence, There are three core benefits to starting a Tribe:

1. The ability to raise capital through token issuance, replacing traditional fundraising models such as bank loans, VC and crowdfunding.
2. Tools and interface for users to utilize blockchain technology to coordinate efforts and execute Tribe goals through voting.
3. Recognition of value within a global framework and the ability to redeem that value at any time.

Native utilizes a reserve currency called Native Token (NT) that is staked into Tribes to generate Tribe Tokens which reflect the value of that Tribe's economy. The Bancor Protocol which Native is leveraging, creates a reserve for each token and acts as an autonomous market maker and gateway out of any one economic system. When NT is staked into a Tribe, it is essentially the signaling of interest in a Tribe and transforms the base currency into a form that resonates with each individual user and becomes one of their preferred stores of wealth.

User Types

<u>Curators</u>

Curators are the founders of Tribes. They oversee and guide the Tribe as it grows. Initially Curators define and facilitate the execution of goals through appropriate allocation of funds, and help crowdfund projects through proposals that have interests aligned with the Tribe. Tribe types can range from a local community in a specific geographic location, to a festival organizer who wants to involve the community in the funding model and decision making processes.

<u>Tribe Creation Process</u>

1. Login occurs through a Web3 compatible interface with a secure identity based login and wallet.
2. The curator is prompted to input the Tribe's name, purpose, category, and amount of NT required for membership.
3. The curator stakes 2,500 NT to create a Tribe.
4. The curator receives access to administrative tools so they can effectively build and manage the Tribe.

<u>Curator Functions</u>

Projects
Initially the curator will be the sole manager of project ideas for the Tribe. They can create internal projects (which are funded through the development fund) and external projects (which allow members to deposit funds that do not come from the development fund).

Proposals
The curator initially creates all proposals for the Tribe. This can be a simple vote to determine something internally, or to make a significant change to the Tribe's vision.

Tasks
Curators can utilize a portion of the development fund to create tasks for members and/or non-members to do for a reward in either Native Token or the Tribe's local Token.

In future versions of Native, control will be distributed amongst the Tribe's Contributors ultimately with the ability to remove the Curator completely if desired.

Contributors

Contributors join Tribes to participate in an economy that resonates with their interests and goals. It is equivalent to staking a portion of wealth into a particular economic system that allocates capital in a way that the Contributor prefers. Their money can be used within the Tribe, but the option to choose the projects and values is the basis for a better economic system.

Contributor Functions

Projects
Contributors are the ultimate decision makers regarding whether a Tribe will fund a project. When a project is proposed by a Curator (or by a Contributor in future versions), Contributors make a decision regarding whether the Tribe will fund the project from the development fund (for internal), or choose to allocate funds into an external project.

Proposals
After a Curator creates a proposal, Contributors vote on whether the Tribe will proceed with that action. Depending on Tribe settings, a Contributor could potentially also make a proposal.

Tasks
Contributors can execute tasks to earn either Native Tokens or Tribe Tokens (see Ecosystem Architecture for more details on tokens).

Functions Expanded and Flow

Project

To execute a Tribe's vision, projects have to be executed. Projects can either be Internal or External. Both are described in detail below. When a project is initiated, Contributors have a set amount of time to indicate support. Depending on the Contributor's decision, the project either will or will not be funded.

Internal

An internal project is added through the admin panel (initially only by the Curator). This type of project, if approved by Contributors, is funded from the Tribe's Development Fund. This means that a portion of the NT balance in the fund would be sent to the project's executor. Once complete, Contributors can benefit from the results of the completed project in ways determined by the project's purpose.

If there are revenues generated from the internal project, these funds can be redeposited into the Tribe's development fund, or deposited to the Tribe's reserve balance to increase the Tribe Token price. This return split would be predefined upon project creation.

External

External projects facilitate the initial capitalization of a project that is being developed external to the Tribe's ecosystem, but is still aligned with the Tribe's mission or goals. An external project can be proposed by a Curator or project founder (with approval). A project overview is created and shared to the Contributors for potential capital allocation.

In later versions, Contributors can also propose projects to be listed in the Tribe, and an optional fee in NT can go to the Tribe's Development Fund for the proposal to be reviewed and potentially accepted.

Proposals

Proposals are voting efforts that take place within a Tribe. Generally a proposal has limited or no direct financial impact on the Tribe's development fund. Rather they are decisions that must be made by members in the Tribe to support its development.

There will initially be two forms of proposals within tribes:

- Member Based - One vote per Contributor in the tribe
- Token Based - Assign voting power to token holders in an equal quantity to the tokens held. Tokens are staked into the voting contract until vote is concluded to prevent malicious voting efforts and are unstaked once vote is concluded.

Choosing a voting type depends on the situation. If there are a few large holders in a Tribe, but the decision impacts everyone, then choosing member based is a more fair solution. However if there are key infrastructure elements at stake, and large holders need to have a heavier voting weight, then token based could be the more viable option.

Tasks

Curators can create tasks through a proposal contract. They can define the amount of NT or Tribe Tokens to be paid out. Once the user has completed the task, the curator (or a third party oracle) approves the task and releases the escrow.

Raising the awareness and capabilities of a Tribe over time will require tasks to be completed. Economic incentives to complete these tasks is paid out through the Development Fund. Tasks can be performed either by Contributors or users who don't have capital but want to work towards membership in a Tribe.

Ecosystem Architecture and Token Model

Native Token (NT)

The Native Token is the base currency of the Native Protocol. It powers the network and provides an objective baseline for the valuation of Tribe's currencies. NT holds a reserve in BNT. This reserve, and an autonomous market-making function, allow users to generate NT by depositing ETH or BNT directly into the contract, and redeem NT for BNT at market value. All of this is completed without a second party on the other side of the transaction, utilizing the Bancor Protocol.

Native Token utilizes a continuous token model, which means that it mints and destroys tokens as indicated by the users of the application. This is an alternative model to setting an arbitrary number of tokens initially and keeping the supply stable. A continuous model for Native has three main benefits:

1. Instant liquidity for all Native Tokens through the calculated reserve price
2. Balanced indicators of ecosystem size and activity
3. Value based on tangible results rather than speculation - in other words more tokens won't be generated unless they are needed

NT maintains a 10% Connector Weight to ensure a significant pool of liquidity should users want to move back into BNT or ETH, as well as to provide a reasonable degree of price stability. The reserve weight is used in price calculation, along with the NT supply and the balance of BNT in the following way:

$$price = \frac{connector\ balance}{Smart\ Token's\ outstanding\ supply \times CW}$$

$$CW = \frac{connector\ balance}{Smart\ Token's\ total\ value}$$

See the Bancor Whitepaper for a further breakdown of this model. It is important to note that the reserve weight ratio could potentially be modified through a proposal. Connector Weight can be modified:

1. To account for large volatility swings in the general cryptocurrency market
2. To support expansion of Native or to stabilize currency value during turbulent times
3. Other unforeseeable circumstances

NT's price is denominated in the base currency BNT, and is readjusted with each acquisition or redemption of NT. This increases or decreases the balance of the reserve as well as the price of NT.

Users allocate NT into Tribes that resonate with their interests and goals, which generates the local currency or Tribe Token at a predefined rate. A standardized initial issuance structure provides a uniform valuation mechanism between Tribes. The distribution of NT across Tribes reflects interest and activity levels within each community. More NT staked in a Tribe correlates to a higher number of active participants, so the value of the Tribe's currency is partially indicated by the amount of NT staked.

Native Token Contract

Users login through a Web3 interface. The user is authenticated and sent to the homepage of the application, where they can purchase NT directly from the smart contract at the algorithmically calculated price. NT can also be traded through a traditional or decentralized exchange, and unique arbitrage opportunities arise if there are any discrepancies between the contract and exchange prices. If the user already has NT, they can also redeem them for BNT at the same price point.

Future versions of Native could integrate applications like Connext, which provides the ability to buy NT directly with a credit card.

There are benefits to supporting the liquidity network and simply holding NT. These benefits include:

1. Storing capital in a relatively stable pool that supports the development of the Protocol
2. Potential increase in value over time as the price of NT grows with the network
3. Passively supporting all Tribes through retaining the stability of the network

The option to skip the purchase of NT and acquiring the Tribe's Token directly will also be an option for users in a later version of the platform who just want to join a Tribe and aren't interested in these other aspects of the Protocol.

Native Token Model

Native Token Conversion

The first step to participating in Native is to convert ETH or BNT to Native Tokens. This conversion happens at an algorithmically calculated rate defined by the Bancor Protocol.

When Native Tokens are generated, there is a split between where the funds are allocated. 50% goes to the Native Development Fund, 10% goes to the reserve to maintain the weight, and 40% is added to the balance to support the Native Token price.

50%
Native Dev Fund

10%
Native Reserve

40%
Reserve Balance

Tribe Token Conversion

Once Native Tokens are acquired, users can join Tribes. Through a similar process to the Native Token acquisition, Tribe Tokens are generated at the calculated market rate.

Deposits into Tribes are split between the Tribe's development fund and the reserve. The initial split is set at 80% to the development fund and 20% to the reserve. These are starting points and can be adjusted at the Tribe level over time.

80%
Tribe Dev Fund

20%
Native Reserve

Once a Tribe starts to function effectively, there is potential for revenues to flow back into the Tribes. These revenues can either increase the amount in the development fund, or sent into the reserve to support the price of the Tribe Token.

Tribe

The Tribe is the economy. Projects are funded and visions are realized at this level. Tribe token price is reflective of the activity and interest levels.

Legend

| Native Token | Tribe Token | User | Ether (ETH) | Bancor (BNT) |

Token Distribution and Allocation

Fund allocation from Native Token generation starts with an 50-40-10 split. This means that 50% of funds deposited into the NT contract is sent to the Native Development Fund which covers salaries, infrastructure, development, token swaps, legal, and seeding of various Tribes. 40% is added to the Native Token reserve balance. The other 10% is sent directly to the Native Reserve, which provides an algorithmic price and autonomous exchange capabilities for NT.

NT to Tribe Tokens

Contributors can browse Tribes and stake NT to generate Tribe Tokens. Holding Tribe Tokens provides membership into a Tribe, which gives users the ability to vote and participate in that Tribe's economy. The predefined rate of conversion of NT into tribe tokens is 1:100.

When a user stakes NT into a Tribe, there is a 80-20 split of funds being allocated to the development fund and reserve contract respectively. The reserve increases with each deposit increasing the price of the Tribe Token, and decreases with each withdrawal, lowering the price of the Tribe Token.

Tribe Tokens to NT or BNT

Users holding a Tribe's Token might decide to leave the Tribe, or simply need another form of capital to acquire a good or service. In this case the user is able to send the Tribe Tokens into the contract and receive NT in return. The Tribe Token would decrease in value, but this would allow the user to remain in the Native Protocol and either hold NT or stake into another Tribe.

The alternative is to move from the Tribe Token to BNT or ETH. This removes the value from the Native Protocol entirely and decreases the value of both the Tribe Token and NT.

From the user perspective we aim to make this flow as intuitive as possible by implementing design thinking and user experience principles which simplifies the transacting process.

Tribes have the option to enable a feature that disincentivizes speculative behavior for the Tribe Token. The Curator can choose whether they would like to implement an exit fee from the Tribe. This means that converting from the Tribe Token would result in less than the par value returned to the user. This feature is purely optional, and not well suited for all Tribes but does encourage more trade utilizing the Tribe token.

Tribe Reserve
The initial Tribe Token reserve weight is set at 20%. This weight encourages a balanced reserve amount to ensure some stability. While Tribes initially are set at this reserve weight, as the Protocol is released and tested, Native can make decisions in accordance with market activity to reevaluate optimal reserve weights for different Tribe types.

Tribe Tools

Tribe Dashboard

Users access their Tribe through Web3 based cryptocurrency wallets, This serves as both the identity and transacting mechanism within Native.

Each Tribe has a dashboard that displays an overview of all activity within the Tribe. This provides essential information such as token price, project proposals, and membership history. From the dashboard, Contributors can see all functions available from the dashboard.

Tribe Tokens

Tribe Tokens are the local currency for each Tribe. They use NT as the reserve currency which provides an objective pricing mechanism across the Protocol, and provides a viable medium of exchange for the group.

Using NT as a reference currency, the valuations between Tribes remains reliable, and currency swaps stay consistent. These valuations also provide a reflection of a Tribe's activity and its user engagement. When projects within a Tribe develop and succeed, utility and value of the local token rise as more Contributors have incentive stake NT to join the Tribe.

Tribe Development Fund

Each Tribe has a Development Fund which grows over time as more members join and revenue is earned through:

- Membership
- Reverse marketing from external parties
- Revenue from business activities capitalized through the Tribe

These funds are utilized to foster growth and execute Tribe goals. There are multiple functions that require a payment being sent to a Tribe. These include the initial staking from a member, proposing a project to the curator, and marketing to a Tribe's user base. The fees and stakes, which vary based on local token value and

number of members, are deposited into the Development Fund. The pool of capital can be allocated to accomplish specific goals with approval from the curator or through Tribe voting. When a project or task is approved to be capitalized through the development fund, the NT is directly allocated to the project creator.

Native Use Cases

There is a wide spectrum of use cases for Native. Here are some that we are excited about, which will be areas of focus for the first round of Tribes on the Protocol.

Art

Art Tribes are about enabling the creative process for individuals or groups who do not have immediate access to capital. Artists thrive when they are connected to their audience and can focus on their craft. Kickstarter has shown that crowdsourcing is becoming a more common medium for funding projects. In 2015 "10 percent of the films that premiered at the most recent Sundance Film Festival were KickStarter-funded projects." Art tribes can organize efforts such as art walks, the creation of murals, paintings, sculptures or simply exist to encourage artistic ventures.

Energy

Energy Tribes revolve around groups of individuals coming together to create meaningful impact in relation to their energy consumption and creation. For example, a community could fund a new solar panel array which can be collectively owned by the community. Native can provide alternative funding solutions for local communities to acquire and utilize more sustainable methods of energy consumption. They can also be used to have people to determine what the acceptable energy usage levels are for each member.

Syndication

Syndication Tribes are already common across many different sectors. People come together to allocate a common pool of funds towards a common goal. Ronald Coase, in Theory of the Firm, discusses how a firm allows for more coordinated production as its resources are pooled. A Tribe is a firm.

Syndication Tribes can streamline investment processes, and provide a governance structure to ensure democratic value distribution. They can target specific Contributors and enable access to a target market. One of the most exciting things about crypto is that anything can be tokenized, which leads to a much wider range of possibilities for Tribes in the Syndication category.

Management of Funds

Funds received through the NT contract will be used for the development and expansion of the Native Protocol. That includes engineering, marketing, legal costs, daily operations, as well as financing the Native Fund.

Development Expenses

This includes advancement of the Native ecosystem tech. This will include deployment of the Native Protocol, security audits, and creation of later features.

Operational Expenses

Costs associated with maintaining day-to-day operations at Native. These include business development, salaries, community management and education activities, human resources and recruiting, accounting and other administrative items.

Marketing Expenses

This part of contributions will cover any costs associated with the promotion of the Native Protocol.

Legal Expenses

This covers any legal costs associated with the establishment and operation of the Native organization. These costs include the ongoing operation of entities selected as service providers by the Native Protocol and any unforeseen legal costs.

Native Community Fund

The Native team is establishing the first Tribe to support the growth of the Native Network by partnering with projects aligned with the goals of the project and also to seed foundational Tribes in the Network.