XTBLOCK's TOKENOMICS

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INTRODUCTION

Blockchain technology is a type of distributed transaction ledger that was originated with the intention of obviating the need of trusted intermediaries, given that these intermediaries often exploit the information of the ledger, use it inefficiently, or corrupt it; instead of relying on these trusted intermediaries, all participants of the network are allowed to maintain their own synchronised copy.

Today, blockchain infrastructure is huge and uses high-performance computers (CPU/ GPU/ RAM/ Storage/ Network) which are also good for algebraic calculations and fit with computing requirements for AI, however, the existing blockchain implementations only use blockchain nodes and networks for the simple purpose of block verification. XTblock's core premise is that the same architecture, miners and infrastructure can be used for AI computing services, like federated training and distributed functioning, in general we call it "Distributed Artificial Intelligence".

"**Distributed Artificial Intelligence (DAI)** also called Decentralized Artificial Intelligence[1] is a subfield of artificial intelligence research dedicated to the development of distributed solutions for problems. DAI is closely related to and a predecessor of the field of multi-agent systems."

By doing this, we desire to create NFTs for the valuable dAI Bots on our blockchain platform.

1. CONTEXT

While using decentralised designs and architectures, and to encourage the participants of the networks to maintain it, a key challenge appears: the need for incentives. Centralised services have clear incentives, and the intermediaries receive them in the form of transaction fees, fees charged for data analysis, finder's fees, or others, but when these services are provided in a decentralised ecosystem, the need for an alternative scheme for incentives arises.

XTblock structured an incentives scheme on top of a protocol economy and with the introduction of XTblock Tokens (symbol: XTT). XTT is a utility Token, whose issuance is oriented to support a shared - economy ecosystem and platform adoption.

All Blockchain Computing services, AI Computing services and related applications built by XTblock will be served in exchange for XTT.

2. SCALE & GROWTH

There are factors to evaluate the growth of the platform: They are the number of users, the number of projects, the categories of projects, the revenue, the market share. While the number of users and the number of projects express the widespread community of the platform ecosystem, the categories of projects express the diversity of the platform in different industries and applications, the revenue expresses the effectiveness of the platform, and lastly, the market share shows the importance of the platform to the market.

3. THE ECONOMY

XTT is a utility Token, whose issuance is oriented to support a shared-economy ecosystem and platform adoption:

- Access to the services offered by XTblock's shared Blockchain Consulting Platform.
- Network node requirement: A staking method for being a node of the public network or a node of the shared Blockchain Consulting Platform.

- Participation in XTblock ecosystem governance as a voting right:

  - Protocol changes and upgrades
  - Parameter changes
  - Roadmap or Tokenomics adjustments
  - Other governance options that could appear

4. GOVERNANCE

Community Voting

For any change, the proposal needs to be submitted to the governance smart contract to organise the

voting campaign with a deadline. The voting campaigns will be governed by the smart contract, the change proposal gets approved with 51% majority from the voting token holders out of total voting tokens at tallying time. The change proposal will be rejected if no decision is made. Per token count 1 vote, the holders don't have to stake their tokens to vote, total votes per wallet address is the total holding tokens of that wallet.

https://github.com/ConsenSys/PLCRVoting
or use a simple & separate blockchain application for this purpose. The main goal is to achieve more with less effort to remove pressure for our team.

5. STAKEHOLDERS

The Company, Founding Team, Advisors, Marketers, Early Supporters, Miners, Enterprises, Developers, Partners, Traders, Bounty Hunters.

6. EXISTING ALTERNATIVES

- The existing solutions for blockchain applications are using public networks or private networks. With a public network, the performance is limited, from 15 tps to 15,000 tps which is not enough for the general public use with thousands or hundred thousand applications at a same time and also expensive with transaction fees.

With a private network, the cost is not based on transaction fee but based on the infrastructure investment, management & maintenance costs, it can vary from a few thousands to hundreds of thousand USD per month.

- Related to the shared AI Computing solution with XTblock blockchain networks, this is an innovative solution and never existed before. The AI infrastructure is costly, currently all AI applications instead of investing in their own infrastructure, have only one choice now - to use the centralized AI services from giant tech firms.

7. TECHNICAL IMPLEMENTATION

The Token issuance roadmap considers a roll-out designed in two important phases; the phase one will be introducing eXTT token on Ethereum Mainnet, and will be considering technical resolutions to foster interoperability between Ethereum and XTblock network, while the phase two will be giving birth to the official XTT on XTblock Mainnet.

1. A cross-chain token swap tool "DecaSwap" will be provided by XTblock team for XTT swap with other Tokens and vice versa.
2. eXTT issued in phase 1 on Ethereum will be kept as part of the interoperability layer between XTblock and Ethereum.
3. eXTT is suitable with ERC20 wallets.
4. Mainnet XTT will be managed with XTSimple Wallet.
5. eXTT on Ethereum and XTT on Mainnet can be swapped by using DecaSwap.

6.   Liquidity pools will be organized on DEX like UniSwap, 1Inch, PancakeSwap, OpenOcean.

After the launch of Mainnet, eXTT (ERC20) tokens will be unaffected and functioning normally.

Github: https://github.com/xtblock

Legal implications of creating the token one way or the other?

8. ISSUANCE & CIRCULATION

The token issuance event will accompany the two stages and the token will be minted at once, first on Ethereum and Binance Smart Chain, secondly on XTblock official blockchain, with a total of 750M XTT Tokens, we choose this amount of token because we believe that by when we deliver the entire roadmap, our Fully Diluted Market Cap will not be less than US$90M what is calculated with the token price at our token swap event.

Phase 1: 500M Tokens

450M Issue on Ethereum (90%)
Smart Contract: ERC20
Token Ticker: eXTT

50M Issue on Binance Smart Chain (10%)
Smart Contract: BEP20
Token Ticker: bXTT

Phase 2: 250M Tokens on Mainnet (Q4 2021)
Smart Contract: XWA21
Token Ticker: XTT

The company will provide a token swap tool to swap between 2 tokens: eXTT on Ethereum and XTT on XTblock Mainnet.

Users from the following countries/regions are not eligible for participation: Afghanistan, Bangladesh, Bolivia, Burundi, Central African Republic, Crimea Region, Cuba, Congo Dem. Rep., Ecuador, Eritrea, Guinea, Republic of Guinea-Bissau, Hong Kong, Iran, Iraq, Kyrgyzstan, Lebanon, Libya, Mainland China, Mali, Burma (Myanmar), Namibia, Nepal, North Korea, Singapore, Somalia, Sudan, South Sudan, Syria, United States, Venezuela, Yemen, Zimbabwe.

9. WHY BLOCKCHAIN

Here we don't address the question why blockchain for a blockchain platform but we address the question why blockchain computing for AI? Blockchain Infrastructure is huge and uses high performance computers (CPU/ GPU/ RAM/ Storage/ Network) which are also good for algebraic calculations and a good fit with computing requirements for AI. There is no sense? if we only use blockchain networks for block verification, with the same architecture and same miners, we can use

their infrastructure for AI computing services, like federated training and distributed functioning.

Below are the factors required for AI computing that must be kept in mind: *[2]*

High computing capacity

The organizations need high performance computing resources, including CPUs and GPUs to explore the possibilities of AI. As the experiments are still carried on in most of the organizations, they are building a strong CPU-based environment to handle basic AI capacities. But currently, the existing CPU-based computing might not be enough to handle the multiple large as per the requirement of deep learning process. To deploy scalable neural network algorithms and manage the high - performance networks and storage computing capacity and density of data handling need to improve.

Storage capacity

The storage capacity is the fundamental requirement for any AI infrastructure; as it has an ability to scale storage as the volume of data grows. But an organization needs to find out the level of storage system they would require planning their experiments with AI. Companies need to handle their expansion plan and manage the storage capacity to be able to make real-time decisions; as AI applications can help to make better decisions when they're exposed to more data.

Networking infrastructure

Seamless networking is an essential component of AI infrastructure. As scalability is of high priority, organization would require a high-bandwidth, low-latency network. Deep learning algorithms depend on communications, and as AI experiment progresses and expands, network systems need to keep pace. For this expansive service, it is necessary to have an expert infrastructure provider who can handle the service wrap and technology globally and also ensure that the stack is distributed and consistent in all places.

Security

As AI is used to handle sensitive data in sectors such as healthcare, financial organizations and more, to securely maintain the personal data becomes a bigger challenge. These pieces of information are extremely vulnerable in nature; and if not managed well can be detrimental to any organization if exploited by unreliable sources. Alongside, if any unwanted and unnecessary data are added to the AI system, it would lead to incorrect decision and inference. Hence, a secured AI infrastructure is required to ensure that your data is protected.

Cost-effective solutions

This is just the beginning of AI model development, as slowly the research work progresses, AI would become more complex and the development costs will be extremely expensive. Every organization

must work to find out the cost-effective solutions to continue with the process and growth. As the companies using AI must continue with the growth, they have to depend largely on the improved network, servers, and storage infrastructures to enable the use of this technology. The whole process is extremely expensive. Therefore, they need to carefully choose the providers who can offer cost-effective dedicated servers. It would improve the opportunity of high performance and help the company to plan, decide and invest smartly in AI infrastructure.

10. OUTSIDE ECONOMY

For the token to function what it is designed for, the liquidity of XTT is important, it creates the way for the users to access our platform services. By emphasizing the liquidity of XTT, we imply the presence of XTT on exchange platforms, like DEX, CEX which help our users to get our utility token XTT for their usage.

List of exchanges that are being considered:
- UniSwap
- 1Inch
- PancakeSwap
- OpenOcean

11. INCENTIVES

• **Revenue Share**: All revenue made on XTblock platform will be divided between nodes that staked their Tokens based on the staking ratio.

X: The stake of a specific node in a network's vault
T: The sum of total Tokens are kept in a specific vault
R: The revenue of specific network
S: The revenue share of a specific node

$S = X/T * R$

• **Block Reward**: Every produced block by Block Producer will be attached with a certain number of XTT token as a reward. This number and its mechanism will be proposed later by a community voting event right before the Mainnet Launch event. The token uses for this purpose will be taken from the Mining Reward pool allocated in Phase 2, after Mainnet.

For now, we propose this number is: **0.001** XTT. This amount is the node expense per second, came up after calculating the tentative minimum cost to run a node per year at US $3,000 and the open public price of XTT.

• **Holding Reward**: The Tokens obtained from the company's vault will be rewarded to all existing wallets based on their current respective XTT token holding ratio.

• **Slashing**: If Block Producers double sign, are frequently offline, their staked XTT can be slashed. The penalty depends on the severity of the violation.
Slashing Conditions: *[3]*

- Double-Sign Slash: 35,000 XTT

Details: Anyone can submit a slashing request on XTblock with the evidence of Double Sign of XTblock, which should contain the 2 block headers with the same height and parent block, sealed by the offending Block Producer.

- Offline Slash: 175 XTT

Details: If a Block Producer missed more than 50 blocks every 24h, the blocking reward for this Block Producer will not be relayed to the XTblock for distribution but shared with other better Block Producers. If it missed more than 150 blocks every 24h, then this will be propagated back to XTblock where another Slashing will happen.

- Rewards for submitting double-sign evidence: 3,500 XTT
- Double-Sign Jail time: $2^{63}-1$ seconds
- Downtime Jail time: 2 days
- Too Low self-delegation Jail time: 1 day

12. TOKEN DISTRIBUTION & VALUE

Phase 1: 500M Tokens

Token Allocation:

2018-2019-2020:

Pre-Seed Sale – 3% (15M Tokens)
These tokens are bXTT (BEP20), issued on Binance Smart Chain.

2021:

Token For Sale – 6% (30M Tokens)
These tokens are bXTT (BEP20), issued on Binance Smart Chain.

Below are ERC20 Tokens (eXTT), issued on Ethereum:

Research & Development - 35%
Network Infrastructure - 20%
Operation - 10%
Founding Team - 6%
Bounty - 3%

Advisors - 2%
Partners - 5%
Marketing – 10%

In 3 years, 2018-2019-2020, we conducted a Pre-Seed Sale with 3% of total Tokens sold to early supporters to survive through crypto winter and develop our technology.

In 2021, we are going to sell 6% of total tokens issued in phase 1, the company commits a long term in its vision. The company, in the meantime wants to maintain its stake for the voting rights on the network but also needs to sell Tokens for its development, this is a trade-off. At the beginning of its operation, the company will have 5% of XTT issued in Phase 1 (25M) and this 5% will be allocated with respective ratio into the defined token pools as presented above, other parts of XTT will be unlocked until it reaches milestones as presented in the "Lock & Unlock Table". Everytime it reaches a milestone, the company will submit its proposal to ask for a community vote to unlock the respective amount of XTT. The voting mechanism will follow the logic presented in section "GOVERNANCE".

2021 Token Sale Pricing

Private Sale Price: $0.09
Token to sell: 5M

Token Swap Open Price: $0.12
Token to sell: 25M
Process: During token swap progressing, we will pour token in the liquidity pool to maintain the Open Price, contributors should wait until the price is balanced with the open price to conduct their swap.

The token swap will be using 2 pairs: XTT/ETH, XTT/BNB.

Softcap: USD $999K or equivalent in ETH, BNB with the ETH and BNB prices at the token swap event.

LOCK & UNLOCK TABLE

The Token Lock policy is applied for these token pools and respective token holders (90%): Research & Development 35%, Network Infrastructure 20%, Operation 10%, Founding Team 5%, Bounty 3%, Advisors 2%, Partners 5%, Marketing 10%.

The Token Unlock Policy will be based on 90% (450M XTT) of the issue tokens of phase 1 respectively with the above token allocation and the following development roadmap:

XTblock's Roadmap: 2 years			
2021	**Objective**	**Action**	**% Tokens Unlock**

Business	**XTblock Development Fund**	XTblock Development Fund, unlock without Voting to start the development strategy, these tokens are ERC20, issued on Ethereum (eXTT)	5%
Tech	**dAI Gomoku DPS Test**	Testing distributed AI Framework with Gomoku Distributed Problem Solving solution	3%
Tech	**dAI Gomoku NN V1 Test**	Testing distributed AI Framework with Gomoku Neural Network solution V1	3%
Tech	**dAI Chess DPS Test**	Testing distributed AI Framework with Chess Distributed Problem Solving solution	1%
Tech	**dAI Chess NN V1 Test**	Testing distributed AI Framework with Chess Neural Network solution V1	1%
Tech	**dAI Gomoku NN V2 Test**	Testing distributed AI Framework with Gomoku Neural Network solution V2	3%
Tech	**Cyber Security Assessment**	Pass the assessment with a top cyber-security firm to certificate our tech for banking and govt applications.	5%
Tech	**XTblock Mainnet Launch**	Launch XTblock MainNet	15%
Tech	**API Framework V1**	Publish API Framework V1 with Blockchain Computing Services	5%
Token	**List on 1st Exchange**	List XTT Token on the 1st Exchange Platform	0.5%
Token	**List on 2nd Exchange**	List XTT Token on the 2nd Exchange Platform	0.5%
Tech	**Web XTblock Explorer**	Launch XTblock Explorer Web	0.5%
Tech	**XTSimple Wallet App**	Launch XTSimple Wallet (Web, Mobile)	0.5%
Product	**DecaSwap.io V1**	A cross-chain bridge to swap bXTT with eXTT (1:1) to allow our users to move their XTT tokens between exchanges (DEX, CEX)	2%
Product	**DecaBot.io V1**	A Crypto Prophet Bot uses XTblock's distributed AI to analyze crypto market and propose users the potential coins for their consideration, lower their risk of loss and increase the chance of gain	5%
2022	**Objective**	**Action**	**% Tokens Unlock**
Product	**DecaSwap.io V2**	An automated market maker (AMM) cross-chain protocol uses XTT as an intermediary exchange token for other tokens which run on different blockchain platforms	5%
Product	**DecaBot.io V2**	A Crypto Prophet Bot with Auto Suggestions for Auto Trading Function uses XTblock's distributed AI to analyze crypto market and propose users with the potential trades (include arbitrage trade but not limited) for their consideration and permission for firing a trade transaction, lower their risk of loss and increase the chance of gain	5%
Tech	**dAI Chess NN V2 Test**	Testing distributed AI Framework with Chess Neural Network solution V2	3%
Tech	**Platform IDE App V1**	Launch Integrated Development Environment Desktop & Web App V1	5%
Tech	**dAI Gomoku NN V3 Test**	Testing distributed AI Framework with Gomoku Neural Network solution V3	1%
Tech	**dAI Chess NN V3 Test**	Testing distributed AI Framework with Chess Neural Network solution V3	1%

Tech	dAI Soccer DPS Test	Testing distributed AI Framework with Soccer Simulation Distributed Problem Solving solution	1%
Tech	API Framework V2	Publish API Framework V2 with distributed AI Computing Services	5%
Tech	NFT for dAI Bots Launch	Launch NFT for distributed AI Bots on XTblock's dAI Platform, first Bots will be in Finance industry and Gaming but not limited.	5%
Tech	dAI Soccer NN V1 Test	Testing distributed AI Framework with Soccer Neural Network solution V1	1%
Business	1st Enterprise Contract	Sign the 1st Enterprise Contract to Build the Ecosystem & Support R&D	1.5%
Business	2nd Enterprise Contract	Sign the 2nd Enterprise Contract to Build the Ecosystem & Support R&D	1.5%
Business	3rd Enterprise Contract	Sign the 3rd Enterprise Contract to Build the Ecosystem & Support R&D	1.5%
Business	100,000 Users	Reach 100,000 Active User Addresses which are holding XTT and implemented at least a XTT transaction	3%
Token	List on 3rd Exchange	List XTT Token on the 3rd Exchange Platform	0.5%

Phase 2: 250M Tokens on Mainnet (Q4 2021)
Smart Contract: XWA21
Token Ticker: XTT (Mainnet XTT)

Token Allocation:
Mainnet Liquidity Pool: 50M XTT
Mining Reward Pool: 100M XTT
Annual Network Reward Pool: 100M XTT

- Mainnet Liquidity Pool: 50M XTT

This liquidity pool is for token holders to swap their bXTT and eXTT with XTT on XTblock's Mainnet to start staking their tokens and conduct operation activities for our blockchain platform. This amount of token will be added in our token swapping tool "DecaSwap".

- Mining Reward Pool: 100M XTT

Block Reward is the mechanism to incentivize our community to contribute their nodes for the network. At the beginning, we propose to reward node per produced block is: **n*0.001** XTT, with **n** is the number of nodes per shard. This amount came up after calculating the minimum cost to run a node per year at US $3,000 and the open public listing price US $0.1 of XTT, so hereby we call 0.001 XTT is a constant number: **k**.

Assuming that we start operating a public network with 10 shards, and 11 nodes per shard, the token consumption by Block Reward is calculated as following:

Number of Nodes per Shard: **n = 11**;
Number of Shards: **m = 10**;

Per produced block: n*0.001 = 11*0.001 = 0.011 XTT
Per second: m * 0.011 = 10* 0.011 = 0.11 XTT
Per minute: 60 * 0.11 = 6.6 XTT
Per hour: 60 * 6.6 = 396 XTT
Per day: 24 * 396 = 9,504 XTT
Per year: 9,504 * 365 = 3,468,960 XTT

The mining reward will end after no more token left in the Mining Reward Pool.

- Annual Network Reward Pool: 100M XTT

Phase 2's Tokens are issued for the network incentives purposes to build the XTblock's ecosystem.

All 100M additional issuing Tokens will be locked in the company's vault, based on the annual revenue (business performance), the number of Token that is allowed to get from the company's Token vault for the network rewarding will be calculated as following:

sa = [Total Stakes of all Vaults];
ra = [Total Annual Revenue of all Networks];
cc = [Total Circulating Token];
aa = [Additional Allocating Token];

if(ra >= sa) aa = cc * 2%; *[4]*

The Tokens obtained from the company's vault will be rewarded to all existing wallets based on their current respective XTT token holding ratio.

With the above rule, for us to circulate all additional 100M Tokens from the company's vault to the market, it will take following this equation:

FV = PV*(1+i)^{n}; *[5]*

PV is the value at time=0 (present value)

FV is the value at time=n (future value)

n is the number of periods (not necessarily an integer)

i is the rewarding rate at which the amount compounds each period

PV = cc; i = 2% or 0.02;

Assumption, PV = 500,000,000 XTT (phase 1), then we have:

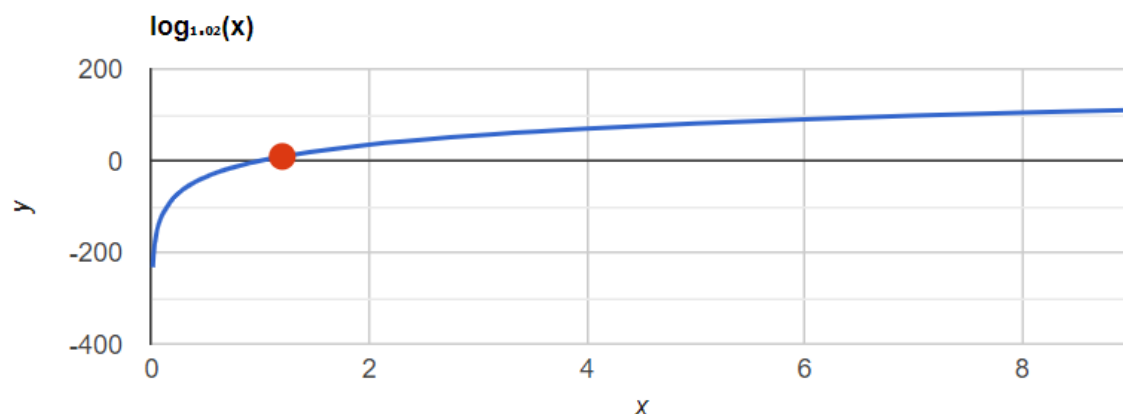$FV = 500,000,000 * (1+0.02)^{n} = 500,000,000 * 1.02^{n}$

n = how many years need to circulate all Tokens in the company's vault.

We know FV is the total amount of Tokens or 600,000,000 XTT. To calculate n, we use logarithm:

$n = \log_{1.02}(600,000,000/500,000,000)$
$n = \log_{1.02}(1.2) = 9.2069377496$

The base 1.02 logarithm of 1.2 is 9.2069377496

In the shortest scenario, we will finish our circulation plan after 10 years.

This mechanism helps us to be confident with our Token's inflation management and technology adoption as well as our team's commitment.

This circulation process will be applied only on the 1st date of Jan every year (Pacific Standard Time).

Smart contracts on the Mainnet will be used to manage the vaults for all networks' vaults.

13. NETWORK OPERATION

How Mainnet and networks for the shared Blockchain Consulting platform get deployed?

Every network will have its vault for staking. Nodes need to stake their Tokens into the vault to be eligible for participating in the network.

All revenues of the networks will be kept in the vault and shared based on staking ratio of all nodes. Once the node withdraws, they will be able to withdraw all their staked Tokens and shared revenue.

14. TOKEN REDUCTION

In 2018, our infancy project had the first try with ICO, and announced the issue of 10B Tokens. In

2021, we decide to reduce 95% of total issuance in 2018 which is 9.5B Tokens. Because of this decision, we only have 500M XTT issues in Phase 1, 2021.

Which Token holders will be affected by the Token Reduction?
All these Token Pools and their token holders since (2018, 2019, 2020 and early 2021 before Token Sale event) will be reduced in term of their token amount: Research & Development 35%, Network Infrastructure 20%, Operation 10%, Founding Team 5%, Bounty 3%, Advisors 2%, Partners 5%, Marketing 10%; including <u>Founding Team, Bounty Hunters, Advisors, Partners, Marketers;</u> all the aforementioned Token holders will be reduced their holding Tokens 95%.

Affection of Reduction with existing Token Holders in Detail:

Early Contributors in 2017, 2018, 2019, 2020: Remain, no change.
Founding Team: 95% Reduction.
Advisors: 95% Reduction.
Bounty Hunters in 2018: 95% Reduction.
Partners: 95% Reduction.
Marketers: 95% Reduction.

15. TOKEN USAGE

The usage of XTT is a simple process, by when users subscribe for a shared blockchain computing package, they use XTT to exchange for using time of the service, the fee is charged upfront for a certain timeframe, ex: monthly, quarterly, semiannually, annually.

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