

XTBLOCK's TOKENOMICS

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<https://xtblock.io>

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, or other such incentives, but when these services are provided in a decentralised ecosystem, the need for an alternative scheme for incentives arises.

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

2. SCALE & GROWTH

There are specific factors to evaluate the growth of the platform: They are the number of users, the number of projects, the categories of projects, the Earnings, the market share, the volume of transactions. While the number of users and the number of projects refer to the widespread community of the platform ecosystem, the categories of projects express the diversity of the platform across various industries and applications, the Earnings express the effectiveness of the platform, the market share shows the importance of the platform to the market, and lastly, the volume of transactions show the actual performance.

3. THE ECONOMY

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

- Access to the services and products offered by XTblock
- Network node requirement: A staking method for being a node of the network
- 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
- DeFi: Swapping, Staking, Farming, Lending, NFT Exchange (but not limited to these).
- Network and storage fees

All Blockchain Computing services, Decentralised Computing services, Decentralised Blockchain Oracles, Decentralised Video Streaming, Decentralised Bot Computing Services, Decentralised AI Computing services, DeFi and related blockchain applications built by XTblock will be provided in exchange for our token, XTT. And while the current

decision is to offer these services in exchange for XTT, some of these services could possibly be offered with other tokens that we issue in the future with tokenomics correlation to XTT, e.g: a part of new tokens earned will be used to exchange with XTT and redistribute to those new token staking pools.

All XTT tokens earned by our platform's services will be redistributed to our single token XTT staking pools and our XTT LP token staking pools; however, part of the earnings will be considered to be used for burning, and this ratio can be determined by voting at a later stage.

4. GOVERNANCE

For any change, the proposal needs to be submitted to the governance application to organise the voting campaign with a deadline. The change proposal gets approved with a 51% majority from the voting token holders out of total voting tokens. The change proposal will be rejected if no decision is made. All these activities can be linked with the help of our Decentralised blockchain oracles. [1]

5. STAKEHOLDERS

The Company, Founding Team, Advisors, Marketers, Early Supporters, Network Nodes, 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's use with thousands, or hundreds of thousands, of applications at the same time, and one must also consider the expensive transaction fees.

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

- With regard to Distributed Problem Solving solutions with Distributed Computing services on the XTblock blockchain networks, this is an innovative architecture. Presently, and in stark contrast to XTblock, computing infrastructure is expensive when it comes to high performance architectures, e.g.: Oracles/Bots/AI computing. Currently most Oracles/Bots/AI solutions, instead of investing in their own infrastructure, have only one choice – to use the centralised Oracles/Bots/AI services from giant tech firms.

7. TECHNICAL IMPLEMENTATION

The Token issuance roadmap considers a roll-out designed in two important phases; phase 1 will introduce the XTT-b20 (BEP20) token on Binance Smart Chain, and the XTT-e20 (ERC20) token on Ethereum Mainnet. We will consider technical bridge solutions to foster interoperability between Binance Smart Chain, Ethereum, and XTblock networks, while phase 2 will give birth to the official XTT on the XTblock Mainnet.

1. A DEX of XTblock's DeFi platform (including Swapping, Staking, Farming, Lending, NFTs... and beyond) will be developed for XTT swap with other Tokens and vice versa; it is an inbound and outbound XTblock ecosystem.
2. XTT-b20 issued in phase 1 on Binance Smart Chain will be kept as part of the interoperability layer between XTblock and Binance Smart Chain
3. XTT-e20 issued in phase 1 on Ethereum will be kept as part of the interoperability layer between XTblock and Ethereum.
4. XTT-e20 is compatible with ERC20 wallets, XTT-b20 is compatible with BEP20 wallets, Mainnet XTT will be managed with XTblock's Wallet.
5. XTT-e20 on Ethereum, XTT-b20 on Binance Smart Chain and XTT on XTblock Mainnet can be bridged by our token bridge tool, using a token lock/unlock mechanism; there will be a fee for bridging and this fee will be determined by our community voting.
6. Liquidity pools will be organised on the existing DEXs, and later we will add more liquidity pools on our own DEX.

After the launch of XTblock Mainnet, XTT-b20 (BEP20) and XTT-e20 (ERC20) tokens will be unaffected and will continue to function normally.

8. ISSUANCE & CIRCULATION

Max Supply: 350M XTT Tokens.

PHASE 1 (Q2 2021)			PHASE 2 (Q2 2022)	
350M Tokens Binance Smart Chain	Bridge	350M Tokens Ethereum Mainnet	Bridge	350M Tokens XTblock Mainnet
Smart Contract: BEP20		Smart Contract: ERC20		Smart Contract: XTA21
Token Ticker: XTT-b20		Token Ticker: XTT-e20		Token Ticker: XTT

Users from the following countries/regions are not eligible for participation:

Algeria, Bangladesh, Belarus, Bolivia, Democratic Republic of Congo, Columbia Cuba, Ecuador, Egypt, Iraq, Iran, Mainland China, Morocco, Nepal, North Korea, North Macedonia, Sudan, South Sudan, Syria, United States of America and its territories (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) and Zimbabwe.

9. WHY BLOCKCHAIN?

What is obvious is that a high-performance blockchain network such as XTblock would significantly benefit blockchain applications. However, in this document, we focus more on addressing the matter of why a high-performance blockchain network is a good fit for Distributed Problem Solving. Blockchain infrastructure is currently massive and widespread, and uses high performance computers (CPU/ GPU/ RAM/ Storage/ Network) which are also good for systems requiring high performance, e.g.: Oracles/Bots/AI. There is therefore little sense in using blockchain networks only for block verification, while the same architecture and miners can use this infrastructure for distributed computing services to solve problems requiring tremendous computing capacity.

Taking an example of the infrastructure required for AI computing, below are the factors that must be kept in mind, which illustrate the current challenges: [2]

High computing capacity

Organisations need high performance computing resources, including CPUs and GPUs, to explore the possibilities of AI. As experiments are still underway in most of the organisations exploring AI, the general approach is to build a strong CPU-based environment to handle basic AI functions. But currently, the existing CPU-based computing might not be enough to handle the multiple large initiatives as required by the 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

Storage capacity is the fundamental requirement for any AI infrastructure, as there is a need to scale storage as the volume of data grows. But an organisation needs to ascertain the level and extent of storage they would require, for planning their experiments with AI. Companies need to handle their expansion plans and manage their 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 a high priority, an organisation would require a high-bandwidth, low-latency network. Deep learning algorithms depend on communication, and as AI experiments progress and expand, 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, finance and beyond, securely maintaining the personal data becomes a bigger challenge. These pieces of information are extremely vulnerable in nature; and if not managed well, it can be detrimental to any organisation if exploited by malicious actors.

Besides, if any unwanted and unnecessary data are added to the AI system, it would lead to incorrect decision making and detrimental inference. Hence, highly secure AI infrastructure is required to ensure that the data is protected.

Cost-effective solutions

This is just the beginning of AI model development, as research progresses slowly across the world. AI will become more complex, and the associated development costs will correspondingly be extremely expensive. Organisations must work to ascertain the most cost-effective solutions to continue with their process and growth.

As organisations using AI must maintain their momentum and growth, they have to depend largely on improved networks, servers, and storage infrastructure to enable the use of this technology. The whole process is prohibitively expensive. Therefore, it would be incumbent upon them to choose service providers carefully and thoughtfully – providers who can offer cost-effective dedicated servers of a high standard. This would help them to effectively capitalise on the opportunity for high performance, and help them to plan, decide and invest intelligently in AI infrastructure.

10. OUTSIDE ECONOMY

For the token to function according to its purpose, the liquidity of XTT is important; this creates a way for users to access our platform services. By facilitating the liquidity of XTT, and by ensuring its presence on exchange platforms, we help our users to obtain XTT, our utility token, to access our services. The appropriate exchanges are currently being considered and will be communicated at a later stage.

In addition, the interoperability with assets on other networks is important. We will build and maintain bridges with other networks to connect different ecosystems, and create more liquidity channels.

11. INCENTIVES

- **Block Reward:** Every block produced by a Block Producer will receive a certain number of XTT tokens as a reward. This number and its mechanism will be proposed later via a community voting event right before the Mainnet Launch event. The tokens used for this purpose will be taken from the Block Reward pool.

Block Rewards are the mechanism to incentivise our community to contribute their nodes to the network. At the beginning, we propose that we reward each node per block

produced as: $n \cdot 0.0001$ XTT, where n is the number of nodes per shard. Presently, we consider that 0.0001 XTT is a constant number: k . The value of k may be subject to change in due course.

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

Number of Nodes per Shard: $n = 11$;

Number of Shards: $m = 10$;

Per produced block: $n \cdot 0.0001 = 11 \cdot 0.0001 = 0.0011$ XTT

Per second: $m \cdot 0.0011 = 10 \cdot 0.0011 = 0.011$ XTT

Per minute: $60 \cdot 0.011 = 0.66$ XTT

Per hour: $60 \cdot 0.66 = 39.6$ XTT

Per day: $24 \cdot 39.6 = 950.4$ XTT

Per year: $950.4 \cdot 365 = 346,896$ XTT

Part of the XTT Earnings will be added into the Block Reward Pool.

- **Routing Reward:** Every node that routes transactions or data will be rewarded a certain number of XTT tokens through the XTT Route staking pool. This number and its mechanism will be proposed later, based on community voting. The tokens used for the purpose of the reward will be charged to the XTblock network user, and this is called the “Network Routing Fee” (based on transaction or service subscription).

- **Storage Reward:** Every node storing blockchain data will be rewarded a certain number of XTT tokens through the XTT Storage staking pool. This number and its mechanism will be proposed later, based on community voting. The token used for the purpose of this reward will be charged to the XTblock network user, and is called the “Network Storage Fee” (based on transaction or service subscription).

- **Staking Reward** is the process of staking our XTT tokens to support the operations of our blockchain network and, in return, holders are rewarded for their support.

XTT will be added to this pool from a part of the token earnings from all activities that are operated by the XTblock blockchain platform; the distribution ratio will be determined by voting.

This staking pool will consider compounding. The compounding reward token will be calculated as following:

$$FV = PV \cdot (1+i)^n; [3]$$

PV is the staking 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

• **Liquidity Mining Reward** is a term used in decentralised finance (DeFi) applications where users supply liquidity and receive rewards for doing so by staking their LP (liquidity provider) tokens. This activity may be operated on our own DEX.

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

Slashing Conditions: [4]

- Double-Sign Slash: 3,600 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: 18 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 XTblock for distribution but shared with other better Block Producers. If it misses more than 150 blocks every 24h, then this will be propagated back to XTblock where another Slashing will take place.

- Rewards for submitting double-sign evidence: 360 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

These tokens are XTT-b20 (BEP20), issued on Binance Smart Chain.

Token Allocation:

i) Tokens For Sale: 10%

ii) Tokens for Development & Operation: 90%

Below is the allocation of 100% of the above 90% of the total issuance amount:

25% Research & Development

6% Network Infrastructure

6% Operation

2% Bounty

2% Advisors

2% Partners

7% Marketing

10% Staking Reward

10% Liquidity Mining Reward

10% Block Reward

10% Storage Reward

10% Routing Reward

At the beginning of its operations, the company will be allocated 5% of 350M XTT and this amount of tokens will be allocated in their respective ratios to the defined token pools as presented above. Other portions of XTT will be unlocked when we reach milestones as presented in the “Lock & Unlock Table” based on community voting. Every time the company achieves a milestone, it will submit its proposal to ask for a community vote to unlock specific amounts of XTT. The voting mechanism will follow the method and the logic presented in the section “GOVERNANCE”.

Token Sale:

For 3 years, 2018-2019-2020: **24,573,353 (7.02%)** of total Tokens, i.e. of 350m Tokens, have been allocated to early supporters who sustained crypto winter as we were developing our technology.

For the purpose of clarity, 'announcement' refers to the first listing announcement of our Token on an exchange, and 'pre-announcement' and 'post-announcement' refer to the period before and after this listing announcement, respectively.

2021:

Token Generation Event: **10,426,647 Tokens (2.98%)**

Pre-announcement Token Swap Price: \$0.31 USDT

Tokens to Swap: 1.75M (0.5%)

Timeframe: 2 weeks

Post-announcement Token Swap Price: \$0.51 USDT

Token to Swap: 8,676,647 (2.48%)

Timeframe: 4 weeks

Softcap: USDT \$1.5M or equivalent in ETH, BNB.

Process of Token Sale:

- We will issue XTT-b20 (BEP20) on Binance Smart Chain and create the liquidity pools at a rate of 1 XTT-b20 = \$0.31 USDT and carry out a pre-announcement swap till the total swapped XTT tokens reach 1.75M, after which we will announce our Token Generation Event for the post-announcement swap. A similar process will be applied for this post-announcement swap.

- During the pre- and post-announcement swaps, our team will check and adjust the liquidity pools frequently to maintain the token price, and we ask you not to swap until you see the corrected price.

- Unsold Tokens in the Pre-announcement Token Swap will be added to the Post-announcement Token Swap.

- Unsold Tokens of Post-announcement Token Swap will be added to 5 pools; Staking Reward, Liquidity Mining Reward, Block Reward, Storage Reward, Routing Reward, following these respective ratios: 20% : 20% : 20% : 20% : 20%.

- Please note: For the token swap event, we will consider one of the following pairs: XTT-b20/USDT or XTT-b20/BUSD.

LOCK & UNLOCK TABLE

The Token Lock is applied for the aforementioned **Token for Development & Operation** pools (90% of 350M Tokens).

The Token Unlock Policy will follow the development roadmap and will be based on community voting.

**The below roadmap order may be re-arranged based on development progress.*

XTblock's Roadmap: 3 years			
2021	Objective	Action	% Tokens Unlock
Token	XTblock's Development Fund	Immediate Unlock to begin operations and development without voting	5%
Token	List on 1st DEX	List XTT Token on the 1st DEX	0.5%
Tech	dAI Gomoku DPS Test	Testing distributed AI Framework with Gomoku board game Distributed Problem Solving solution to showcase the platform's AI capability	1%
Product	XTblock's Farming Site to support XTT-b20	Deploy a farming site to support staking XTT-b20 and farming with XTT-b20/BUSD LP on Binance Smart Chain, along with our token lockers.	2.5%
Governance	Voting Site	This is a voting site to support governance of the XTblock platform	1%
Tech	Decentralised Video Streaming Test	Testing Decentralised Video Live Streaming solution to showcase the platform's video streaming capability	1%
Tech	XTblock TestNet Launch	Launch of XTblock TestNet	10%
Tech	Distributed Web Protocol	xttp / xttps - XTblock's extended transfer protocol for our distributed web architecture	1%
Product	XTblock's Web Browser to Support xttp / xttps	Our own web browser that additionally supports our distributed web protocol xttp / xttps	1%
Tech	XTblock Explorer	Launch of XTblock Web Explorer	1%
Product	Token Bridge	A token bridge to swap XTT-b20 with XTT-e20 (1:1) to allow our users to move their XTT tokens between Binance Smart Chain and Ethereum network.	2.5%
Token	List on 2nd DEX	List XTT Token on the 2nd DEX	0.5%
Product	Decentralised Video Streaming Platform V1	A Decentralised Video Streaming platform that uses our high-performance blockchain network for live video streaming without its own tokenomics.	5%
Product	Crypto Market Analysis Bot V1	An exclusive Crypto Market Analysis Bot that uses XTblock's Distributed Problem Solving solution to analyse the crypto market and recommend the potential cryptocurrencies for users' consideration, and possibly lower their risk of loss while increasing the possibility of gain	5%
2022	Objective	Action	% Tokens Unlock
Tech	Cyber Security Assessment	Passing the assessment with a top cyber-security firm to certify our tech for banking and government applications.	1%
Tech	XTblock Mainnet Launch	Launch of XTblock MainNet	10%

Tech	XTWallet App	Launch of XTWallet	1%
Product	XTblock's DEX	An automated market maker (AMM) cross-chain protocol that uses XTT as an intermediary exchange token for other tokens that run on different blockchain platforms.	5%
Product	Decentralised Video Streaming Platform V2	Further development on our Decentralised Video Streaming platform that uses our high-performance blockchain network for live video streaming, with its own tokenomics.	5%
Product	Crypto Market Analysis Bot V2	More bots will also be introduced to help users monitor the market and their trades, e.g, pump/dump detection, liquidation position monitor, etc.	5%
Tech	dAI Gomoku NN V1 Test	Testing distributed AI Framework with Gomoku Neural Network solution V1	1%
Tech	dAI Chess NN V1 Test	Testing distributed AI Framework with Chess Neural Network solution V1	1%
Tech	Platform Terminal V1	Launch Platform TerminalV1 for dApp development & blockchain speed package subscription model	5%
Tech	Decentralised Domain Name Service	A Decentralised Domain Name Service that runs on the XTblock blockchain network and http / https	2%
Tech	dApp Framework V1	Publishing dApp Framework V2 with Distributed Computing services (to support Blockchain/ Bot/AI Computing)	10%
Tech	NFT Framework & NFT Marketplace launch on our DEX	Launch of NFT framework & NFT marketplace on our DEX	5%
2023	Objective	Action	% Tokens Unlock
Business	100 dApps	Reach 100 dApps with active users	1%
Business	1,000,000 Txs Daily	Reach a volume of 1,000,000 transactions daily	1%

13. NETWORK OPERATION

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

Every network will have its pools for staking. Nodes need to stake their XTT tokens into the respective pools with their node roles to be eligible for participating in the network; the amount of staking tokens will be determined at a later date.

Once the nodes withdraw their staking, they will be able to withdraw all their staked XTT tokens and the shared XTT earnings.

14. TOKEN REDUCTION

In 2018, to raise funds for our early development initiatives, an ICO was run, which met with significant challenges due to crypto winter. During this time, we announced the issuance of **10B Tokens**. At present for XTblock, which is a new initiative and at a far advanced stage of development compared to 2018, we have decided in 2021 to reduce **97.5%** of the total token issuance amount, **i.e. a reduction of 9.75B Tokens**. Due to this decision, we will only have **250M XTT** for token holders and the company. Moreover, to support our Blockchain Network Incentives, we will issue **100M XTT additionally**. Therefore, the total token issuance is **350M XTT**.

Which Token holders will be affected by the Token Reduction?

Effect of reduction on existing Token Holders, in detail:

Early Contributors in 2017, 2018, 2019, 2020: 50% Reduction.

Founding Team: 97.5% Reduction.

Advisors: 97.5% Reduction.

Bounty Hunters in 2018: 97.5% Reduction.

Partners: 97.5% Reduction.

Marketers: 97.5% Reduction.

Anyone else not listed here: 97.5% Reduction.

15. TOKEN USAGE

The uses of XTT include, and could extend beyond, the following:

- Network Routing and Network Storage fees.
- Blockchain Computing services: When users subscribe to a shared blockchain computing package (quota), they use XTT in exchange for access to the services. XTT is charged upfront for a certain timeframe, e.g.: monthly, quarterly, half-yearly, yearly.
- For distributed Bots or Oracles: To use the Platform Terminal, the user connects to their XTT wallet to access the use of bots or oracles (based on the business model of those bots or oracles).
- For using dApps built by XTblock's team, e.g.: for settling fees on our DEX.

REFERENCES

[1] Zero Gas Voting

<https://github.com/snapshot-labs/snapshot>

[2] Infrastructure requirements for Artificial Intelligence (technology-innovators.com)

<https://www.technology-innovators.com/infrastructure-requirements-for-artificial-intelligence/>

[3] Time value of money, Future value of a present sum

https://en.m.wikipedia.org/wiki/Time_value_of_money

[4] Slashing Conditions

<https://docs.binance.org/smart-chain/validator/guideline.html>

[5] Github for XTblock's Tokenomics

<https://github.com/xtblock/tokenomics>

Thank you.

Please note: The information contained in this document is subject to change at the discretion of its authors, until the token swap event takes place. Changes subsequent to the token swap event will be subject to community voting.