

 SophiaTX  
The logo features the word "Sophia" in a white sans-serif font, followed by "TX" in a stylized teal font where the letters are composed of multiple parallel lines.

# MAINNET TOKENOMICS

Select Language:

繁體字 (Traditional Chinese)

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## Abstract

SophiaTX is a project to build a public blockchain suitable for adoption by businesses regardless of size and industry. In a relatively short period of time, the technology can have a direct impact on the bottom line for all businesses that seek better collaboration, exchange of information, and an increase in competitiveness. SophiaTX is aimed at extending business applications such as SAP and also the integration of disruptive technologies such as IoT sensors, AI, Robotics, and several others.

As the SophiaTX mainnet launched on July 25<sup>th</sup> 2018, it is important to highlight the fact that the tokenomics of the network must be business-friendly. Most of the public blockchains today have transaction fees directly tied to the value of the token that is highly susceptible to fast changes in its value. In general, businesses and organizations either find it too complex to deal with, or too risky from the financial perspective.

SophiaTX has introduced two principles for its public blockchain that eliminate these unnecessary barriers for adoption. Firstly, the transaction fees are paid back to the community in its native SPHTX token; however, the price is stable at USD 0.01, using a specific exchange rate mechanism. Secondly, it is possible to pay for transaction fees from a different account - a so called 'sponsor'. For example, a technology firm as a Value-Added Partner of SophiaTX can 'sponsor' i.e. pay for all transaction fees of its end user. These two simple features allow businesses and organizations wishing to use SophiaTX to delegate the responsibility for end-to-end solution to its technology providers and consulting partners.

The tokenomics is built in a simple (yet very flexible) way to enable all participants to contribute as they wish, and also build additional blockchain capabilities within their existing activities. Value Added Partners can embed SophiaTX into their solutions, while witnesses and the entire community provide a truly public decentralized blockchain. The SPHTX token is used to align the objectives of the entire community towards a common goal of driving the adoption of the SophiaTX blockchain.

## Term Glossary

**SophiaTX Mainnet** – a decentralized blockchain, consisting of multiple interconnected nodes into one distributed network that is secured via complex software logic and encryption. SophiaTX uses the Delegated Proof of Stake (DPOS) protocol based on Graphene, an open source blockchain software.

**End User** – the end user of the SophiaTX blockchain mainnet and related software, applications. The user performs a variety of transactions incl. writing the data to the blockchain and reading the data from the blockchain.

**Value-Added Partner or VAP** – a company, an individual, or non-profit organization, fully appointed and certified by SophiaTX, that is actively providing value-added software and/or consulting services based on the SophiaTX software to the end users, wider audience, and public.

**Token** – a digital token, referred to as SPHTX, native in the SophiaTX mainnet, representing rights to use the software platform (mainnet) and earn joint rewards from the use of the platform by the other users. This token is limited to use only in the SophiaTX main net software and has no purpose outside of the mainnet and related applications.

**Witness** – a trusted member of the community who operates one of the nodes that performs the production and the signing of the blocks. Witnesses are voted in by the SophiaTX token holders.

**Witness Node** – a computer connected to the SophiaTX blockchain (mainnet) which has the rights to 'sign the blocks,' by operating the software created for that specific purpose.

**Holder (hodler)** – a person (or an entity) who owns the rights to use the SophiaTX blockchain by holding SophiaTX tokens and using them in the form of transaction fees.

**Transaction Fee** – when the end user of the network performs a transaction, he or she must pay a fee in the form of SPHTX tokens. The specific transaction fee is determined by a pre-determined mechanism and is subsequently distributed according to the rules set in the blockchain software.

**SophiaTX Community** – individuals or companies who either contribute to, support, or use the SophiaTX software to advance the blockchain use and adoption.

**Promo Pool** - the SophiaTX network address that collects certain amounts of tokens to be used for the advancements of the SophiaTX platform including

Marketing, Development Projects, Support of the VAP's, and other purposes in order to promote the project.

## 1. SophiaTX Mainnet

The SophiaTX mainnet is a decentralized, permission-less, public blockchain application which uses the DPOS (Delegated Proof of Stake) consensus algorithm.

The mainnet has been developed with business use in mind and has a number of distinct features to allow small, medium, and large businesses to leverage its transaction features. The SophiaTX whitepaper contains the description of the project's overall intent and the roadmap for further development.

Launched on July 25<sup>th</sup>, 2018 at 13:00 CEST, SophiaTX has been set up with the following attributes:

- Block creation – every 3 seconds
- Maximum size of transaction – 8 Kilobytes
- Block size – from 0.13 Megabytes up to 49.7 Megabytes (3 seconds \* 2048 TPS \* 8096 Bytes)
- Maximum throughput or TPS – 2048 transactions per second
- Maximum amount of transactions – 6144 per block
- Configured for up to 51 Witnesses

## 2. Mainnet Initialization and Nodes

To initiate the SophiaTX mainnet, the first initial node will be started on 25<sup>th</sup> of July 2018 at 13:00 CEST. Subsequently, there will be several additional nodes started to ensure that the network will become stable and distributed. To achieve a truly decentralized network, we welcome other interested SophiaTX token holders to join the network by establishing additional witness nodes.

The network is configured for up to 51 witness nodes on the SophiaTX mainnet. Witnesses will be voted by the token holders on a daily basis. If no token holders vote on a particular day, the same witnesses will continue to witness until new witnesses are voted in.

## 2.1 Initial “Seed” Nodes

SophiaTX will provide an initial set of nodes which are geographically spread around the globe. The following is the list of SophiaTX seed nodes:

- France: seednode1.sophiatx.com
- UK.: seednode2.sophiatx.com
- Canada: seednode3.sophiatx.com
- USA: seednode4.sophiatx.com
- South Korea: seednode5.sophiatx.com
- China: seednode6.sophiatx.com

## 2.2 Additional ‘Non-Witness’ Nodes

In addition to the seed nodes described above, SophiaTX will provide ‘non-witness nodes’ for the purpose of additional connectivity and add-on applications such as the blockchain explorer and wallet. These nodes are fully operational and valid from blockchain perspective. However, they are not eligible for token rewards.

The SophiaTX has established the following initial set of non-witness nodes:

- France: socket1.sophiatx.com
- USA.: socket2.sophiatx.com
- China: socket3.sophiatx.com

## 3. Token Allocation for Witnessing Activity

The network has been configured as per the whitepaper, with 150 million tokens to be created by witnessing activity over a 25-year period; which is 6 million tokens per year.

Based on the above there will be circa 16,438 tokens which are the reward for witnessing activity by witnesses; these are created and released every day and will be distributed to all involved parties (as per section 3.2).

Since the network is based on the ‘delegated proof of stake’ protocol or DPOS, the rewards for witnessing activity will be distributed across all SophiaTX community members, including ‘voted-in’ witnesses and token holders leveraging specific rules.

### 3.1 Qualifying as a Witness

The mainnet is configured with up to 51 witness nodes and in order to qualify as a witness, it is required to vest 250 000 SPHTX tokens. This amount will increase to 300 000 SPHTX by Jan 1<sup>st</sup>, 2019. The witness must prove his/her capability to operate a node with a fast network response time and latency as per specification in the witness installation procedure (separate document).

### 3.2 Distribution Mechanism – Newly Created Tokens

The newly created tokens generated by the witnessing activity, sometimes called 'mining,' will be distributed to the SophiaTX community in the following way:

- 1.5 million per year to witnesses (25%)
- 3.9 million per year to token holders (65%)
- 600 000 per year will go to the Promotional Pool (10%)

Token allocation per witness per day (assuming a maximum 51 number of nodes):

- 25% of 16,438 tokens per day = 4 109.58 tokens per day for witnesses
- $4109.58 / 51$  witnesses = 80,57 tokens per witness per day

Token allocations for token holders per day:

- 65% of 16,438 tokens per day = 10 684,7 tokens per day for holders

These tokens are distributed based on the token holders' stake, so the distribution is made on the proportion of tokens held.

Distribution for the witnesses will happen every block. Distribution for the token holders will happen every 1200th block (60 minutes).

## 4. Transaction Fees and Token Allocation

Transaction fees on the SophiaTX Blockchain are paid in SPHTX, the SophiaTX native token. A downside to many of the current blockchains is the lack of stability and predictability of transactions costs and/or fees, especially when building a blockchain application which is intended for long term use. To mitigate such an undesired feature, the SophiaTX transaction cost will be incurred in the SPHTX token however the fee will be set at a fixed rate equivalent to USD 0.01 using an exchange rate mechanism as described in the Section 4.2.

All witnesses will be rewarded in SPHTX, and the amount of received SPHTX per transaction will vary according to the most recent exchange rate as described in the following paragraphs.

## 4.1 Distribution Mechanism

The transaction fee will be paid within mainnet in SPHTX. Prior to distribution to the SophiaTX community, 10% of the tokens will be burnt. The subsequent 90% will be allocated to the community as described for the distribution applied for witnessing activity (section 3.2); i.e. 25% to witnesses, 65% to all tokens holders, and 10% to promo pool.

The number of tokens distributed to the individual token holders is based on the token holders' stake, so the distribution is made on the proportion of tokens held.

Distribution for witnesses will happen every block. Distribution for token holders will happen every 1200th block (60 minutes).

## 4.2 Exchange Rate

The Exchange Rate is the rate used to calculate the conversion from USD to the SPHTX token when compensating the witness (transaction fees). The exchange rate valid for transaction fees on the mainnet will be set for a 7 day period or until the next update.

We will provide an automated mechanism which will be installed on the witness nodes which will be used to input external exchange rates into the block chain so that the software algorithm can incorporate this information into the market rules.

This external exchange rate information is called a "price feed," and it will take a median of the exchange rates so that manipulation of the price information would be very difficult by any single witness or party without considerable collusion. The price feed and other delegate behavior is publicly auditable, and delegates may be voted out by the SPHTX Token holders at any time.

### 4.2.1 Calculation Method

In order to mitigate impact of short term fluctuations and daily trading, the exchange rate of SPHTX to USD will be updated regularly.

The new exchange rate will be:

- determined as median price of the last 7 days as per coinmarketcap.com, captured in 15 minute intervals via automatic script



- newly set exchange rate is valid for next 7-day period or until the next update

#### 4.2.2 Updating the Exchange Rate

- The Exchange Rate (SPHTX to USD) will be set on a weekly basis (by witnesses via automatic script) for a 7-day period, or until the next update

#### 4.2.3 Data Sources

- Coinmarketcap.com (CMC) and another two sources will be used to create the median for the source of price values for the SPHTX token. If the CMC API isn't accessible, the system will use the previously obtained value
- The 7-day measurement interval starts on Monday 00:00 GMT

## 5. Value-Added Partner or VAP

The SophiaTX project has been established with the clear target of creating a cross-industry platform which is suitable for adoption by businesses and organizations, regardless of the size. To secure development of the ecosystem and drive adoption of SophiaTX, it is crucial that additional technology, consulting and other relevant organizations join and actively participate. To formally recognize the contributions to the SophiaTX project, the team has launched a 'Value Added Partner' (VAP) program.

The Value-Added Partner can best be described as a company, an individual, or a non-profit organization which has been formally appointed by SophiaTX and is actively promoting the SophiaTX platform and its products to End Users with added value products or services. In this collaboration, the VAP acts as an integrator and consultant with a direct relationship to the end user or client. The VAP also enables his users/clients to use the SophiaTX Blockchain.

### 5.1 Use of SophiaTX Platform and Value-Added Services

The Value-Added Partners have the rights to use the SophiaTX software and related products as all other members of the community. The use of the SophiaTX blockchain is always paid for by using SPHTX. The VAP can also serve as the sponsor for the transaction fees for their end users/clients. The VAP has the rights to embed the use of SophiaTX into their applications and solutions whilst the transaction fees of SophiaTX apply.

## 5.1. How to Become a VAP

In order to become a VAP, the organization or individual should contact the Partner Program Department within the SophiaTX team and apply for the program. Once applied, it is mandatory to enroll and become certified on the official SophiaTX Training & Certification process. The SophiaTX Team will organize the SophiaTX Academy, i.e. multiple training sessions in several geographical locations with the objective of formal high-quality education for developers, partners, and consultants. Details about the SophiaTX Academy will be published on regular basis on the web site.

Further details regarding VAP program, certification, and technical support are available from the SophiaTX team.

## 6. Mainnet Integration Into the Marketplace

As SophiaTX launches its mainnet on July 25<sup>th</sup> 2018, in addition to the tokenomics, the marketplace will be enabled with the use of SPHTX token within the next 2-3 months.

## 7. Further Documentation

There are additional documents that specify in detail the topics of the witnessing activity “mining”, the installation process for a node etc.:

- witness installation procedure
- wallet user guide including vesting, voting, and account transactions

# SophiaTX



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