



MAESTRO

# MAESTRO

Revolutionizing  
the Digital Music World



A Blockchain-Based Music Streaming Platform  
for Artists and Listeners

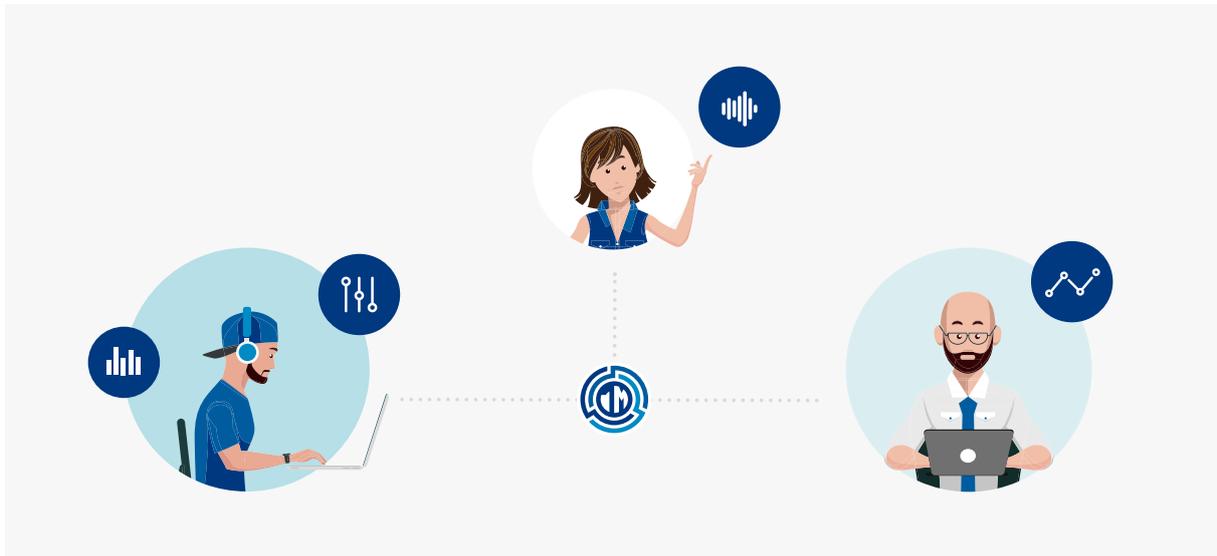


# Table of Contents

- 1. Introduction: A Blockchain-Based Music Streaming Platform for Artists and Listeners** — 3
- 2. Understanding the Market** — 4
  - 2.1. Status of the Market ..... 4
  - 2.2. The Problems of the Market: Unfair Profit Structure for Artists ..... 5
  - 2.3. The Emergence of Blockchain and Its Issues ..... 7
  - 2.4. Solution ..... 8
  - 2.5. Goals ..... 11
- 3. Maestro Product and Process** — 12
  - 3.1. Product Description ..... 12
  - 3.2. Core Values ..... 15
- 4. Maestro Platform Structure: Technical Description** — 15
  - 4.1. Maestro Platform ..... 15
  - 4.2. Maestro and Blockchain's Interconnection Structure Chart ..... 18
  - 4.3. The Maestro System: Blockchain Process ..... 20
- 5. Business Differentiation** — 26
- 6. Road Map** — 28
- 7. Funding and Token Distribution** — 29
- 8. Mission and Goals** — 31
- 9. Legal Disclaimer** — 32
- 10. Reference** — 33



## 1. Introduction: A Blockchain-based Music Streaming Platform for Artists and Listeners



Blockchain technology is undeniably changing the face of the digital music industry. However, existing blockchain music services focus solely on improving established streaming and distribution structures, and fail to address fundamental problems of the current industry. Future music products developed with blockchain, unlike their predecessors, must utilize the technology to provide innovative functions that revolutionize the music industry at its core.

Maestro started with such a need, to solve a problem that plagues the music industry today: namely, the unfair structure of the industry itself. Third parties, such as labels and agencies, currently reap in over 80% of generated profits, leaving artists with barely any support and struggling with financial burdens. Music player companies only exacerbate this inequality through inefficient bureaucracy. We at Team Maestro believe that for both music and its industry to thrive, we must provide an environment focused foremost on promoting the creative efforts of artists and guaranteeing their fair compensation. Therefore, we propose a blockchain-based music platform that acts as a creative ecosystem established on virtuous cycles of mutual cooperation between creators and consumers. Music distribution rights are currently monopolized by third parties such as labels and production companies, who have used their influence to control the resulting profits. The inequality inherent in such a distribution structure affects not only artists, but also consumers, who become burdened with unreasonable prices they must pay to enjoy music. Maestro aims to create a transparent industry through decentralization with blockchain technology. By leaving out the "middlemen" from the process, consumers will be able to use streaming services at considerably more reasonable prices.



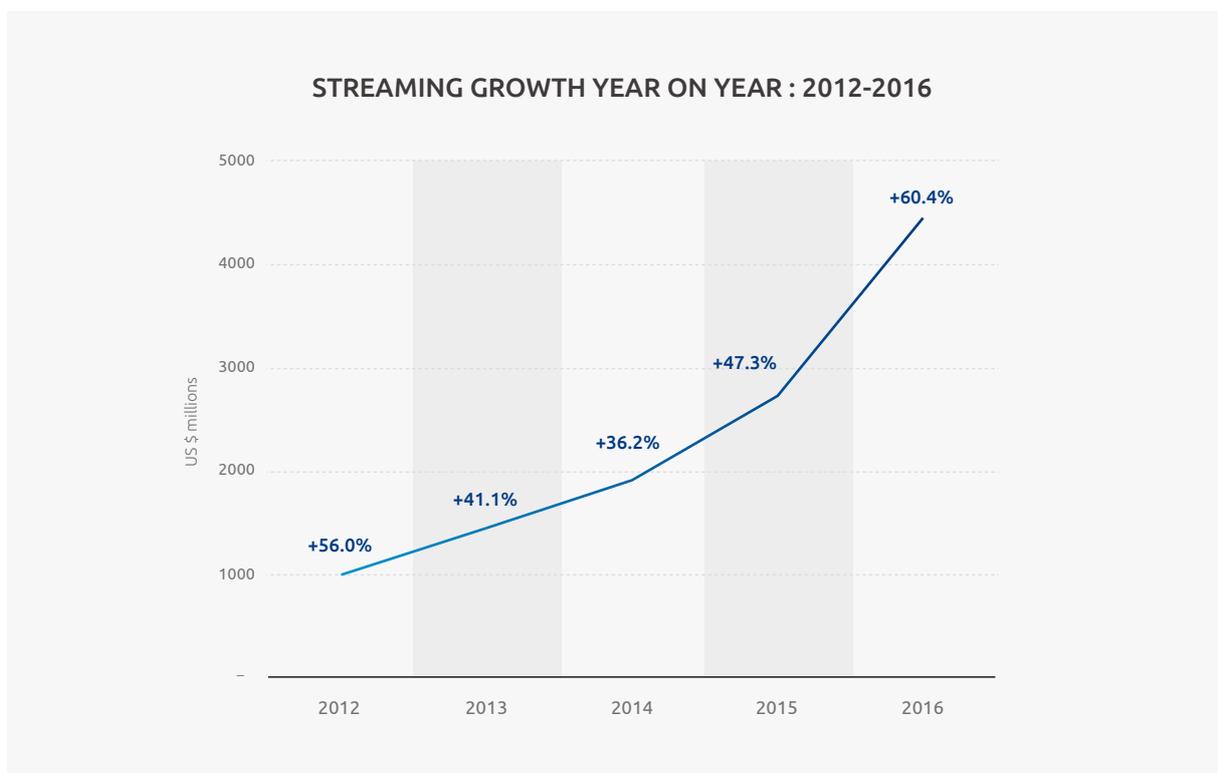


Maestro is primarily composed of two parts: "Symphony," the streaming service, and "Ensemble," the crowdfunding center. Artists can raise funds for their project prior to production through Ensemble. After completing the project, they can then distribute their creations and generate revenue through Symphony. The distribution and handling of rights, copyright, and transactions are all transparently executed through Symphony in accordance with data recorded on Maestro's blockchain.

Maestro will become the new paradigm for the music industry. We at Maestro will provide an environment that allows for unhampered creation as well as an ecosystem that fairly divides rights of songs between artists and investors, and profits among all token holders. Maestro aims to revolutionize the bureaucratic media industry and to cooperate with existing parties to ultimately aid and nurture a greater diversity of artists.

## 2. Understanding the Market

### 2.1. Status of the Market



\*Reference: IFPI. (April 25th, 2017). '2017 Global Music Report: Annual State of the industry', 17pp.





Today's media are no longer focused on television and physical albums. Digital music profits account for 50% of global recorded music revenues, and the music market is continuously growing even now. The digital music industry generated a revenue of \$7.8 billion in 2016, recording growth of approximately 17.7% over 2015. The growth of the music market can be attributed to the development of digital devices, the dissemination of music production services, and the diversification of music channels and other outlets. Many artists can now create and present high-quality music more easily at lower costs.

The structure of the music market has also changed. The focus of the industry has shifted from downloads to streaming, with streaming taking up 60.4% of all generated revenue, and 112 million active users subscribed to paid streaming services. The total number of streaming distributions to date from Spotify, one of the biggest streaming services in the industry, exceeds 10 billion.

Technological advancements such as faster telecommunication speed, dissemination of AI speakers, and development of connected cars are expected to further accelerate future growth of streaming services. It can be safely predicted that the structure of the music industry will continue to shift towards a streaming based paradigm.

## 2.2. The Problems of the Market: Unfair Profit Structure for Artists

### The Unresolved Problem of the Music Market: Value Gap

The music market is suffering from the problem of a "value gap." A "value gap" is the large disparity that emerges between the value of user-upload services and that received by the creator of the content. Music provision services, such as Apple Music, generate \$3,904 million in value through licensing, based on roughly 212 million users. On the other hand, services that use a user upload method, such as YouTube, only generate 1/7 of that value (approximately \$553 million), despite having four times as many users (900 million).

In June 2016, Paul McCartney, Taylor Swift, and over 1,000 artists and composers began the value gap campaign, proposing a petition that stated:

*The value gap undermines the rights and revenues of those who create, invest in, and own music, and it distorts the marketplace. This is because, while music consumption is at record highs, user upload services are misusing 'safe harbor' exemptions. These protections were put in place two decades ago to help develop nascent digital startups, but they are today being inappropriately applied to corporations that distribute and monetize our work. We urge you to take action now to create a fair playing field for artists and rights owners. In doing so, you will be securing the future of music for generations to come.*





We at Team Maestro also agree that there is an urgent need to resolve the value gap and steer the industry away from the anachronistic systems that continue to stifle artists' creativity today.

### **A Loss for Artists: An Unfair Profit Structure**

Streaming has changed the way people consume music. Listeners no longer purchase whole albums and instead pay fixed monthly fees to stream music. However, the market's shift of focus from individual music sales to streaming has become problematic as an even more abnormal structure is formed and artists receive even less compensation for their work.

Maestro will reform the problematic structure of the music industry to provide a creative environment for all artists, starting with the ambiguity of copyright and the insufficient share of revenue received by creators.

Artists can only receive their share of the pie after over 80% of the initial profit is distributed among various parties including labels, entertainment companies, streaming services, and managers, leaving only a meager 7% (approx.) for the actual artists. Such "middle men" have an enormous influence on the industry due to their monopoly over rights to distribute and license songs, which only intensifies as more songs are produced under their control. To maintain this monopoly, labels and agencies provide the cost of production up front to promising artists, composers, or production companies in return for the rights to distribute their music. It may seem as if the artists are receiving support from the aforementioned parties, but in reality, they are losing the rights to their own work.

### **A Loss for Consumers: An Inefficient Payment Structure**

Streaming is undoubtedly a groundbreaking business model that has wholly changed the music market. In contrast to downloads, consumers can now access numerous songs regardless of their device storage. Yet while streaming allows ease of use, it also decreases artists' profits and increases costs for customers. Consumers pay the full amount, even if their music consumption does not reach the level of their fixed monthly fee. First, it is possible to efficiently improve this fixed fee, adjusting it so that it matches the consumer's actual music consumption.

Streaming fees can also be further decreased by leaving out unnecessary intermediaries. Distribution costs increase as more third parties, such as labels and entertainment companies, get involved, and are added to consumers' streaming fees. When there are too many middlemen in business, it is the consumer who must ultimately pay the price. This is a situation that must be improved.





### 2.3. The Emergence of Blockchain and Its Issues

With the birth of Ethereum and its revolutionary smart contract, numerous attempts are being made to apply this technology in the music industry as well. We are seeing more and more instances of blockchain being used, such as "Opus," an Ethereum-based music service; "Resonate," a service that offers a unique profit allocation structure, and "Choon," a platform that focuses on profit distribution.

Most blockchain-based music platforms focus on obtaining copyrights, music profit allocation issues, and improving the transparency of the structure. The Maestro team also agrees on these three areas of improvement. However, we have doubts on whether the copyright or profit distribution-focused approach can indeed revolutionize the music industry and establish an environment which artists can boldly move to from existing labels.

Currently emerging are the following issues that accompany blockchain-based services:

#### Agony for Consumers: A Lack of Music from Existing Labels

New platforms are enticing artists into blockchain-based services to secure their rights. This is a positive change, as it allows them to secure and operate their copyrights without unnecessary intermediaries. Listeners have different issues, however. As customers desire mainstream music from famous artists, most streaming services feel the need to make substantial investments into supporting as much content as possible and so cater to a variety of tastes. Blockchain technology is the basis of many innovative attempts, but due to the difficulty of obtaining rights to mainstream music from label companies, it is not easy to satisfy the needs of many customers.

#### Agony for Production Companies and Artists: Defiance Toward the Existing Structure

To establish a new structure, the production company or artist must abandon their current label. However, failing to maintain business with the current label could lead to problems with production costs. It is not easy for production companies to wholly abandon their relationship with labels, defy the established structure of the industry, and join a new paradigm.





## Agony for Labels: A Lack of Benefits

There are no ostensible benefits to be gained by labels from the emergence of new blockchain services. Instead, such services would cause them to lose their current monopoly over music copyrights. Despite the numerous problems they cause in the industry, it must be acknowledged that labels should retain their current rights through a variety of efforts, activities, and expenditures.

It is evident that every party in the current music industry has a different position and viewpoint. Team Maestro have decided that the problems of the industry cannot be resolved by proposing an idealistic model that does not consider the perspectives of every stakeholder. Thus, we have taken an approach that differs from existing blockchain-based music services—it will provide a novel element that will prove attractive despite the aforementioned problems. In doing so, we at Maestro have focused on considering the intricate relationships intertwined among all parties within the industry.

## 2.4. Solution

### A Solution to the Problem: 'Capital'

Maestro focuses on 'capital' to solve the aforementioned problems—specifically, the costs required to produce a song. The problem of capital comes before other important issues including a fair distribution of revenue and improvement of the music industry structure.

As capital is the main element that runs the current music industry, it is safe to predict that improving the funding process will provide a fundamental solution to its problems.

### Current Production Process

Production companies receive funding as investment from labels to produce music. As such, they transfer in advance the exclusive rights for distribution. Even if only a portion of the rights is transferred, the artist must only distribute their music through the label. Once the contract is drawn, artists have no choice but to follow the established process to receive proper funding and publish their creations.





## Inadequate Structure for New Artists

New artists are burdened by the problem of capital as well. Most new and emerging artists cannot obtain even minimum wage from their musical endeavors, and usually must resort to other jobs or part-time work. Although it has become possible for solo artists to publish songs at much lower costs than previously, the generated revenue—or what the artists receive of that revenue—is still not enough. To raise profits to a sufficient level, various activities requiring not only production costs but also marketing and operation costs are necessary. As such, artists yet to be publicly recognized cannot avoid financial burdens, which also directly affect their livelihood.

Eventually, the act of creation becomes directly linked with the issue of capital. This is an issue that all artists, as well as all other parties in the music industry, must face. The issue is relevant to individual artists as well as small to medium-scale production companies. The fundamental solution to the music industry's problems does not lie in just securing the rights of the artists. To truly improve artists' rights, the structure of streaming services, and the profit distribution structure of the industry, we must focus on the primary problem: capital.

## Solution 1: Crowdfunding for Music Production

In order to create a music ecosystem that encompasses all parties, Maestro focuses on resolving the issues of capital and of providing a fair blockchain-based streaming service. Maestro will solve these issues through crowdfunding.

Crowdfunding is an alternative financial service that enables a project or venture by raising money from numerous people. Already well known as the business method used by Kickstarter and Indiegogo, \$16.2 billion in funding has been invested around the world through this method. Crowdfunding has solved the issue of funding for promising ventures and projects while creating a new process that allows early-adopting customers to choose the products to be produced. Many projects, especially in the arts, have successfully started through this process.

Maestro would like to organically apply this crowdfunding concept throughout the music industry. We aim to create an ecosystem in which production costs are raised by fans and investors, and profits generated by streaming the song are fairly distributed among artists and investors. Blockchain technology will thus play a prominent role in providing funding for producing music and fairly distributing its rights.





## Solution 2: Reasonable and Groundbreaking Model for Consumers

Maestro's method will bring more benefits to consumers as well. Maestro's services have reasonable pricing policies in which the consumer pays according to the number of songs they have actually streamed. If the consumer does not use any of the services provided, they are not charged. Maestro provides incentives to consumers by allowing reasonable subscription plans based purely on usage.

This funding structure provides new investment and communication opportunities for consumers. The consumer can choose to communicate directly with an artist and become an active participant in their project. If the project they have funded is successful, they can expect a share of the profits based on the amount of their investment. Maestro is the first blockchain platform through which consumers and artists can help each other for mutual benefit.

### Maestro's Services

Maestro is a blockchain-based music platform comprised of a crowdfunding center and a streaming service. Maestro focuses on constructing a platform where profits are distributed fairly through the transparency of blockchain technology and thus resolves the issue of capital: the most fundamental problem that underpins the present industry.

Artists can reduce the burden of production costs by receiving funding through Maestro's crowdfunding center, "Ensemble." Consumers receive rights to the content they have invested in. Since investors receive a share of the song's rights, they can also develop a sense of responsibility in promoting it.

Once complete, a project is registered onto the streaming service, "Symphony." The subsequent profits generated from the content are distributed among the shareholders. In other words, Maestro can resolve the present funding issue through advanced funding, help secure artists' rights, and operate a streaming service to create an environment in which music projects have a better chance of success. Rather than focusing only on the artists' share of the profit, we deal with the funding issue for all participants. We can construct a quickly activating participatory music service by providing incentives to each participant.

We at Maestro are focused exclusively on creating a new music ecosystem that can support all artists, production companies, and investors, using blockchain technology and considering appropriate incentives for each party.





## 2.5. Goals

### 1) **Implement blockchain technology for an efficient, future-oriented music service platform.**

Maestro will implement blockchain technology and use it to progressively develop a decentralized application best suited for the music industry.

### 2) **Provide a conducive environment for creating music.**

Maestro will resolve the most urgent problem of the music industry: the unfair distribution of capital. This problem must be addressed in order to attract and secure a larger user base, including artists.

### 3) **Create an environment in which small to medium-scale production companies and emerging artists can reduce their financial burden and retain their rights over their work.**

Despite the proliferation of the music market, most of the revenue continues to be monopolized by major production companies. This monopoly results in a vicious cycle in which smaller production companies lack the funds to create high-quality content, and continue to have great difficulty in attracting consumers. Maestro will help the creative activity of smaller production companies and emerging artists by fairly allocating the industry's capital.

### 4) **Help produce high-quality music by implementing the Lean Process.**

The Lean Process, which focuses on optimizing processes to create the most value out of least resources, first began in the manufacturing industry, but has spread widely to other fields since its introduction. The music industry is no exception. Efficient communication between creator and consumer that begins at the production stage helps create high-quality content.

### 5) **Allow consumers freedom of choice and create new investment opportunities.**

Maestro will provide all consumers with opportunities to invest in established, emerging, and yet-to-debut artists. Investors will be guaranteed a fair share of the profits, even if the artists later sell their copyright and distribution rights.

### 6) **Provide opportunities for consumers to actively cooperate with artists in promoting projects and to participate in the creative process.**

Consumers who fund projects through Maestro have an incentive to become their "marketers" and actively participate for the success of their investment. They will become reliable supporters for artists and production companies.





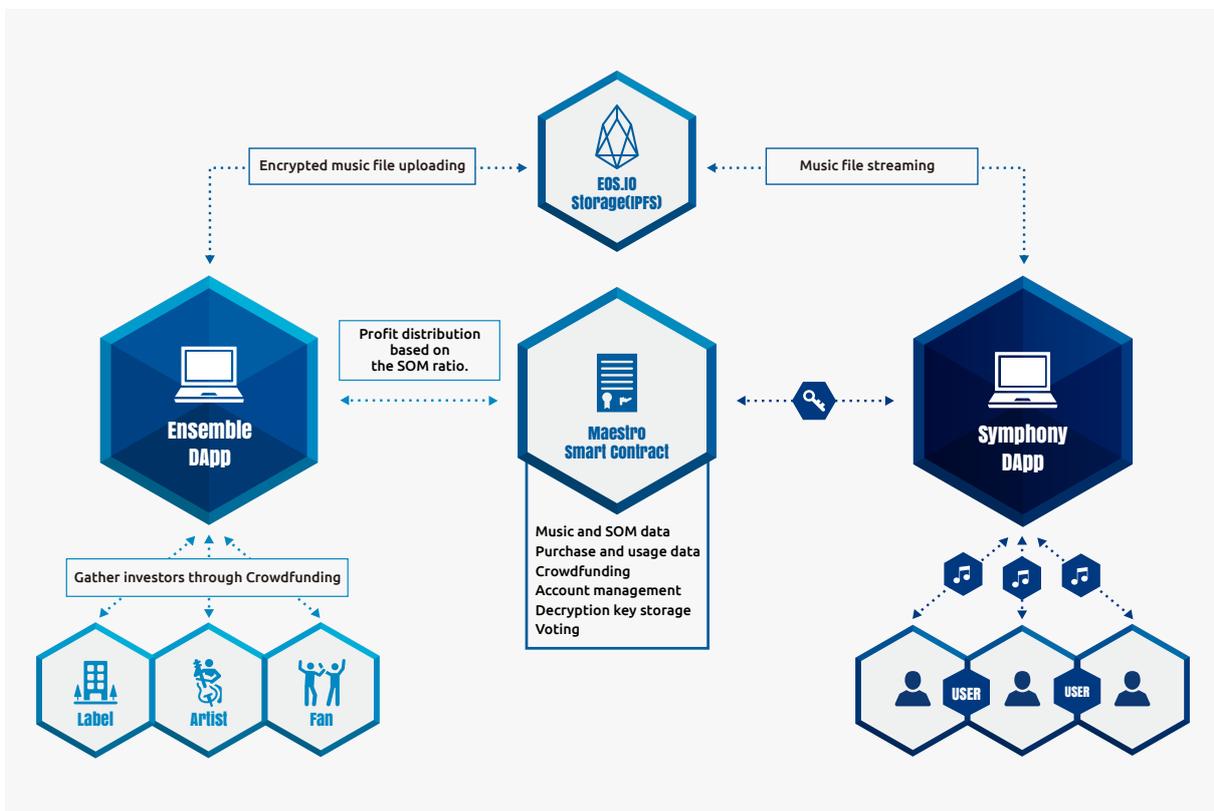
④ Provide decentralized, secure services for all customers.

Maestro may hold service construction as its immediate objective, but in the long term, Maestro's ultimate goal is service decentralization. We aim to eventually establish a robust structure that distributes all revenue fairly among artists and project token holders.

### 3. Maestro Product and Process

#### 3.1. Product Description

##### Overall structural diagram of Maestro





## **Blockchain-Based 'Music Streaming + Funding' Platform**

Maestro is a comprehensive music platform that integrates investment, distribution, and profit realization. Maestro is a blockchain-based platform that is largely comprised of two parts: the crowdfunding service that handles the attraction, investment, allocation, and balancing of accounts for funding, and the streaming service that handles the distribution of music. Maestro's goal is to construct a virtuous-cycle ecosystem in which artists produce their projects through advanced funding, distribute the results through the streaming service, and share the profit with the investors. The whole process works entirely through smart contracts and a decentralized system, without any third party intervention. The technical details will be further described in the next section.

## **Maestro System**

The Maestro System is made up of two platforms, Ensemble and Symphony. These two platforms are connected to Maestro's blockchain through smart contracts, with all music files encrypted and stored in distributed storage. We are currently focusing on developing service operations, and aim to eventually establish a decentralized platform through distributed storage powered by EOS.IO.

## **Maestro Smart Contracts**

Maestro's set of smart contracts, along with the contracts for listening and payment for usage of the streaming service, include rights distribution and profit allocation of songs through the funding system. It also holds the decryption key for the music stored in Maestro's encrypted distributed storage. While using the service, consumers will use the Maestro token to receive a decryption key to stream their music.

## **Symphony: Music Streaming DApp**

Symphony is the streaming client of Maestro. We at Maestro plan to develop the mobile version of the application after fully developing the web platform. Symphony transparently records streaming service usage as well as other relevant activities, such as user votes and public inquiries of Maestro's blockchain.





### **Ensemble: Crowdfunding Center**

Ensemble is a crowdfunding decentralized application (DApp) that allows the artist to create projects and raise funds. Artists can personally distribute the rights to their work and designate the amount of funds they wish to receive. Ensemble actively aids artists in obtaining funding for their projects as well as securing their rights. The system also manages the balancing of accounts and allocation of revenue.

### **Music Storage**

In the early stages of service, Maestro will store music through a centralized server for maximum efficiency and fast service performance. In the mature system, all music uploaded to Maestro will be encrypted and stored in distributed storage. When uploading the files, music will be encoded and stored according to their sound quality and file format, such as Hz and Kbps.

### **Maestro Token (MAE)**

The Maestro Token (MAE) is the base currency of Maestro. This token is the payment method for the streaming service and will be listed on the exchange. All payment methods within the service will use Maestro Tokens. Investment profit will also be distributed in Maestro Tokens.

### **Stake of Music (SOM)**

Stake of Music (SOM) is the proof of rights to creative content given to investors in projects. SOM is initially held by the artist, who can choose to allocate it among investors at the crowdfunding stage. SOM holds the rights to profits generated by the creative work; all profits from the platform are equitably allocated based on the SOM ratios. SOM transactions are all recorded on the blockchain.

### **Maestro Point (MSP)**

Maestro Points (MSPs) are the influence used for upvotes and downvotes in the Symphony streaming service. MSPs are granted based on the number of Maestro Tokens (MAEs) held, streaming service usage, and SOMs obtained by participating in Ensemble funding.





## 3.2. Core Values

### Blockchain and Cryptocurrency Specialized for Music

Maestro distributes all profits generated from the platform among token holders. Maestro is a virtuous-cycle platform where all profits created from music are returned to the artists and investors. The goal for Maestro's blockchain is to gradually expand its function to ultimately decentralize the system and minimize the elements handled by the company. Maestro minimizes the service distributor's profits through decentralization of the service. The decentralized service will minimize the roles of the service distributor and operator, decreasing unnecessary allocation and helping to establish a proper music ecosystem.

### A New Marketplace Focused on Creativity Makes Rights Distribution and Sales Possible for Creative Works

Maestro expands the opportunities for investment that were previously open to only a small number of investors. Artists share their rights with investors, who can obtain profits based on their investment share. Maestro resolves the imbalance caused by lack of funding and information, creating a new marketplace that allows SOM investments as well as SOM sales and trades.

## 4. Maestro Platform Structure: Technical Description

### 4.1. Maestro Platform

#### An EOS.IO-based Blockchain System

Maestro is focusing on fast software development of a smooth service for the music platform. Maestro uses EOS.IO-based blockchain technology. We chose EOS.IO because of its high scalability using parallel CPUs, far superior speed, and free transactions based on DPOS. To maximize profits for artists and minimize burdens for consumers, Maestro uses an EOS.IO-based blockchain that does not require any individual transaction fees from users. The cost of the blockchain is charged to the developer using EOS.IO. There are no costs apart from the coins deposited to the developer. We use EOS.IO blockchain technology to increase the benefits of decentralization for all users.





Maestro's goal is to decentralize all areas of service. The Maestro team has reviewed the technology for implementing file transmission, streaming, and other functions using distributed servers. The Maestro System will use a distributed server system called IPFS (The InterPlanetary File System) to transmit streaming files.

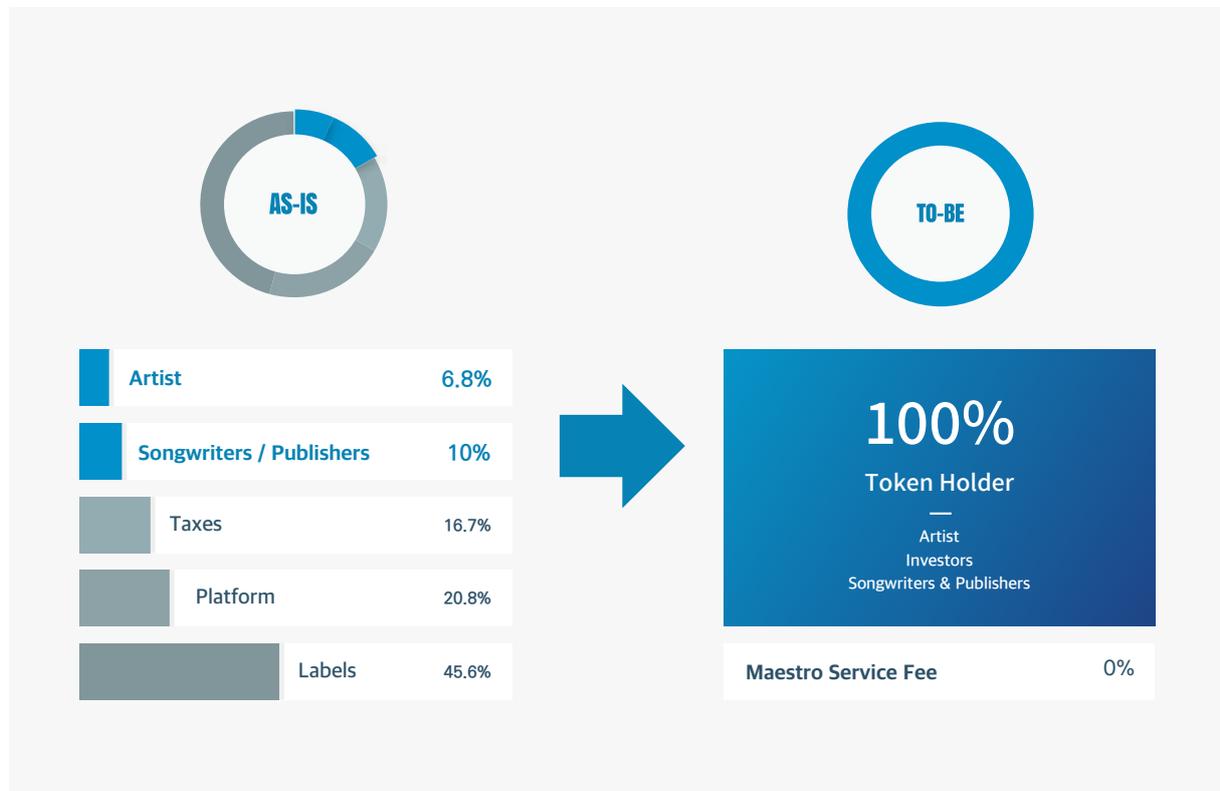
IPFS is a distributed file system that uses a structure to connect computers to the same file system. IPFS has implemented a server- and client-based web using a P2P method. Previously, webs could only be maintained using a centralized server. With IPFS, webs can be distributed and maintained without a centralized remote server. In other words, even if a server becomes inoperable, the files are distributed through P2P, allowing them to be shared without delay. EOS.IO uses IPFS to implement the distributed storage, which is also the reason EOS.IO was chosen for the Maestro system. Developers using the EOS.IO platform put up a set amount of coins in order to guarantee the CPU and storage usage for the EOS.IO blockchain. As the holder of the Maestro tokens, Maestro allocates the profits generated by its platform to all other token holders. Maestro is also allocated with platform profits based on the number of tokens we hold. Part of these allocated tokens will be used to purchase and deposit EOS coins to ensure smooth Maestro system operation, leading to quality service maintenance and enhancement. Maestro will progressively upgrade the Maestro system, according to the development stage of EOS.IO.

The Maestro team promises to lead the project efficiently and decentralize service operations progressively. We seek to address any of the problems or uncertainties found in other music platform projects, and hope to operate and expand our operation in a practical and rational method.





## Maestro's Profit Structure



The profit model is primarily comprised of fees from the streaming service and crowdfunding. Fully 100% of profits are returned to the token holders. All profits are fairly returned to the token holders according to the ratio of tokens held. The Maestro System does not obtain any profit.

Fees for the streaming service are set at 10%, and the fees for Crowdfunding are set at 3% of the total funding amount. The fees may be altered during operation, but the Maestro team's goal is to set the fees as low as possible. All fees generated by Maestro are equitably allocated to token holders according to the ratio of tokens held.

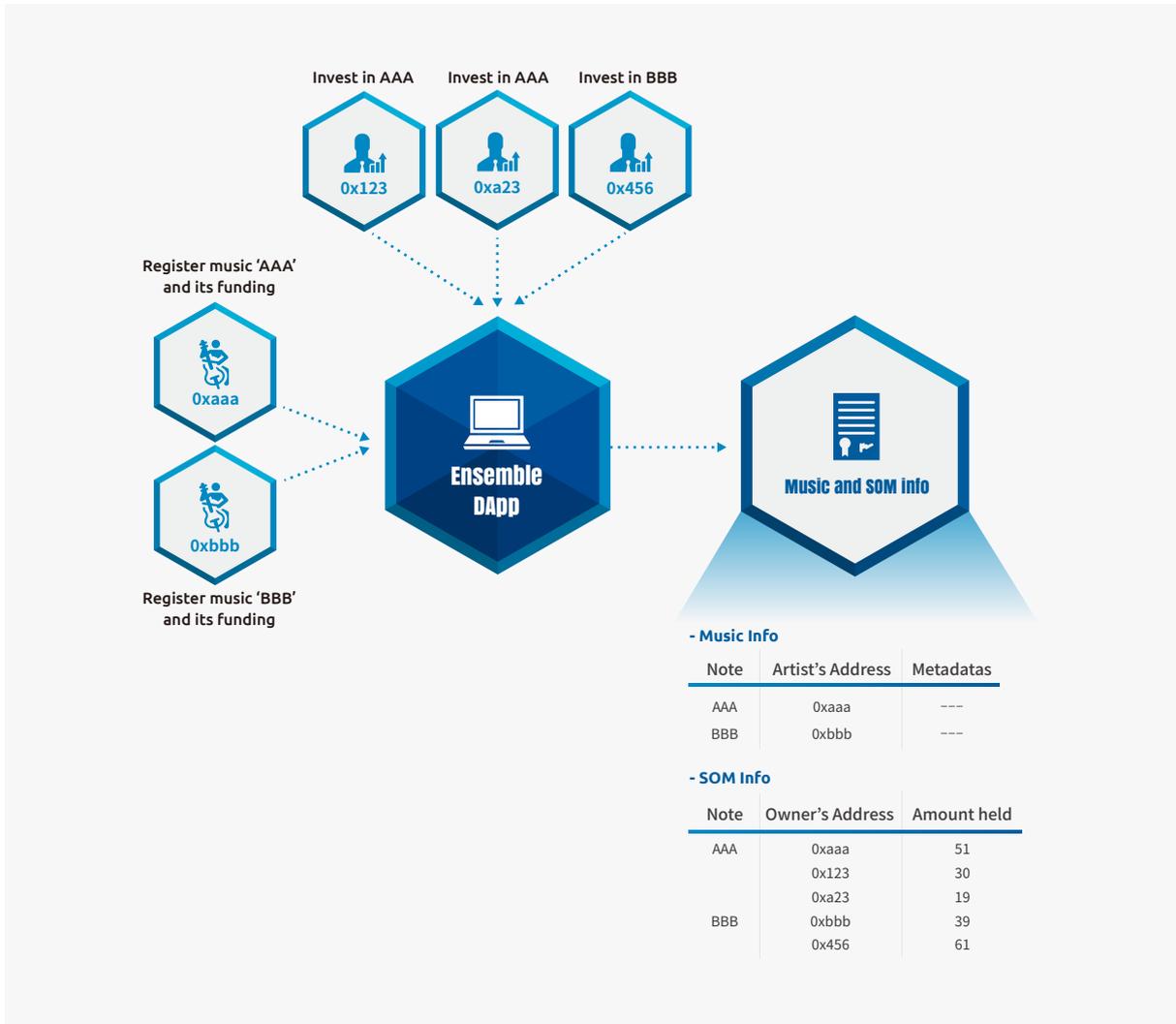
Ensemble provides a balancing of accounts system for allocation. For all balancing of accounts, Ensemble takes a snapshot of the wallets within Ensemble once every week. Profits are transmitted to individual wallets in Maestro Tokens according to the ratio held at the time the snapshot was taken. The Maestro team will initially retain 22% of the Maestro Tokens to maintain the streaming service. The Maestro team also will also receive a balancing of accounts for profits according to the amount held at the time of the snapshots. This shows our determination to decentralize most of Maestro's systems going forward and to allocate all profits fairly.





## 4.2. Maestro and Blockchain's Interconnection Structure Chart

### Ensemble's Blockchain Record Structure



Maestro manages rights for all songs in Ensemble. The rights and ownership details for each song are recorded in the EOS.IO network through smart contracts. User IDs and addresses are linked by syncing with the account management server, and the rights to songs are also synced.





## Symphony's Blockchain Record Structure



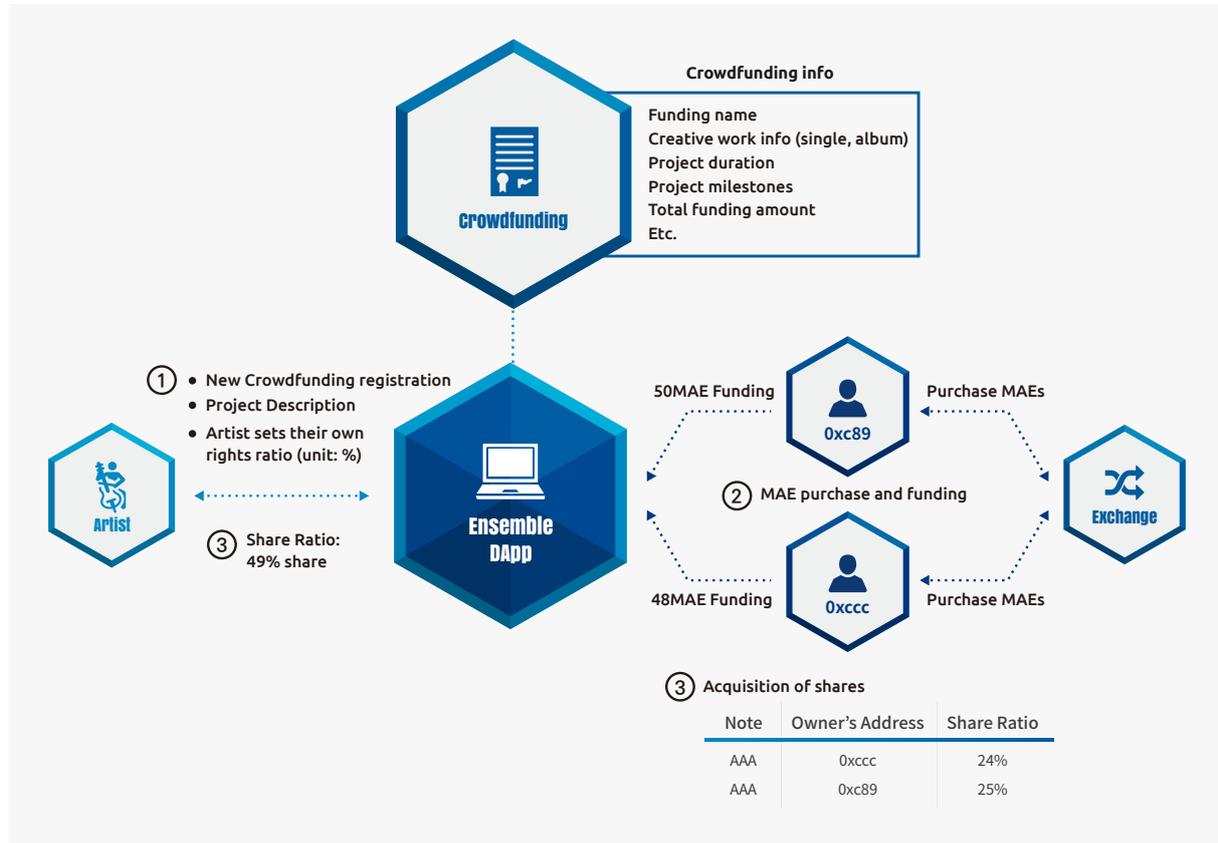
Each usage of Symphony is recorded on the blockchain through smart contracts. We record Symphony's payment and usage data. Symphony uses the record data to determine if the user account has a purchase history for the specific music. Accounts with verified access rights can confirm their access rights on EOS.IO IPFS. Before IPFS implementation, the content server will be maintained through CDN.





### 4.3. The Maestro System: Blockchain Process

#### Ensemble: Crowdfunding Process



Artists can create their accounts and design their projects to be funded. After a funding project has been established, the artist can create SOMs for distribution of ownership. Artists must make a one-time registration fee payment (\$1 worth of Maestro tokens) to register for crowdfunding, and exclusively secure unique SOM names, implement smart contracts, etc. The SOM name for funding shall be comprised of six characters including special characters.

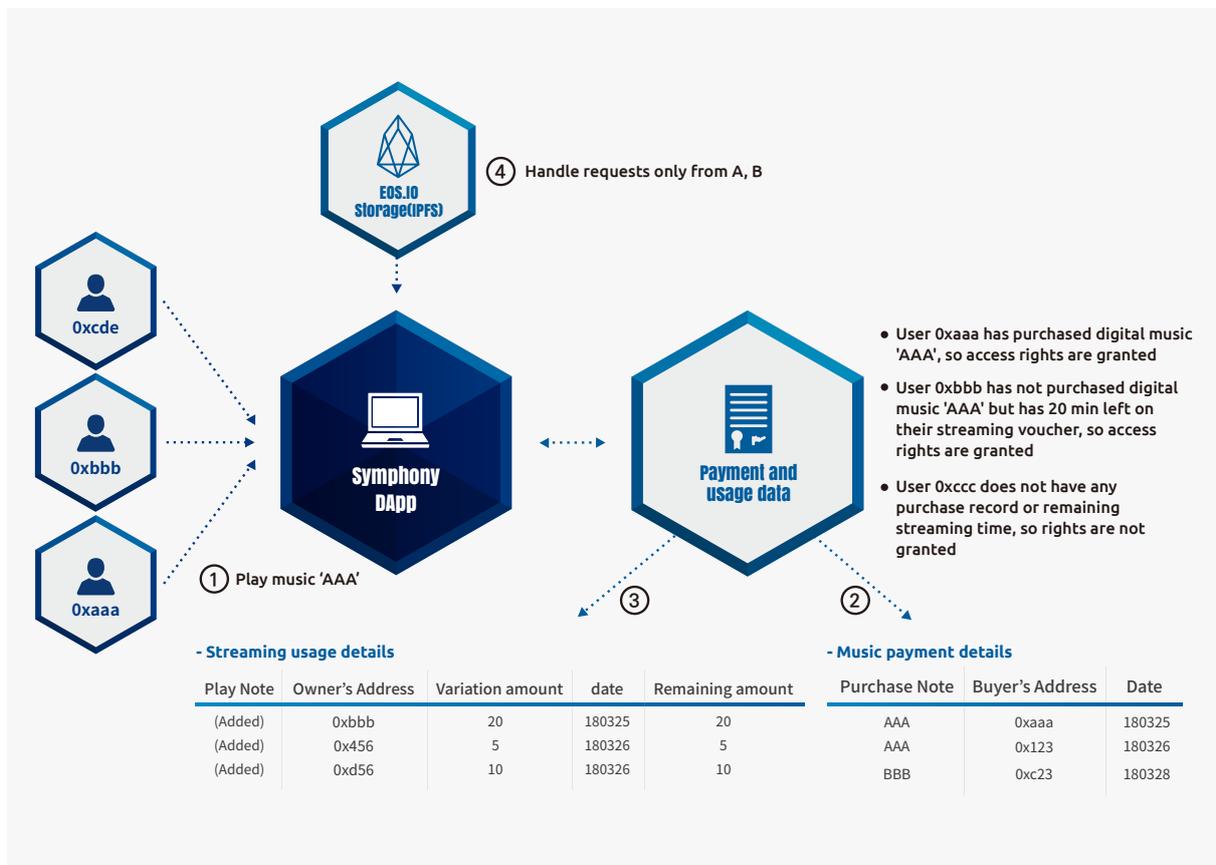
Artists can assign rights for their entire projects when designing project funding. Through separate smart contracts, the system divides the rights to the funded songs, albums, etc. for sale. Data used in funding projects include the funding name, creative work form, funding duration, price, total amount issued, allocated sales amount, participant allocation of rights, disposal details for unsold amounts, artist wallet address, project duration and milestones, methods for balancing accounts, and more. For example, ownership can be distributed as 30% for the arranger, 50% for the composer, and 20% for the lyricist. However, for artists to secure the rights to their song, we recommend that the artist retains 51% of the rights, but this will be at the artists' discretion.





Once funds are raised, the artist proceeds with the project. Once the song is made, the artist uploads the complete music on to the Maestro platform. When profits are made from the streaming distribution of the song, the amount is fairly allocated amongst the funding participants according to the SOMs held. A monthly balancing of accounts happens once each month on the 5th day.

### Symphony: Streaming Service Process



Customers can use Maestro in the same way they use existing streaming applications by purchasing streaming licenses using Maestro Tokens. When a customer tries to listen to music for the first time, the Maestro System initially checks the customer's payment record. The Symphony DApp uses smart contracts to verify the customer's streaming usage rights on blockchain. Customers must receive verified access rights to their user account before listening to any music.

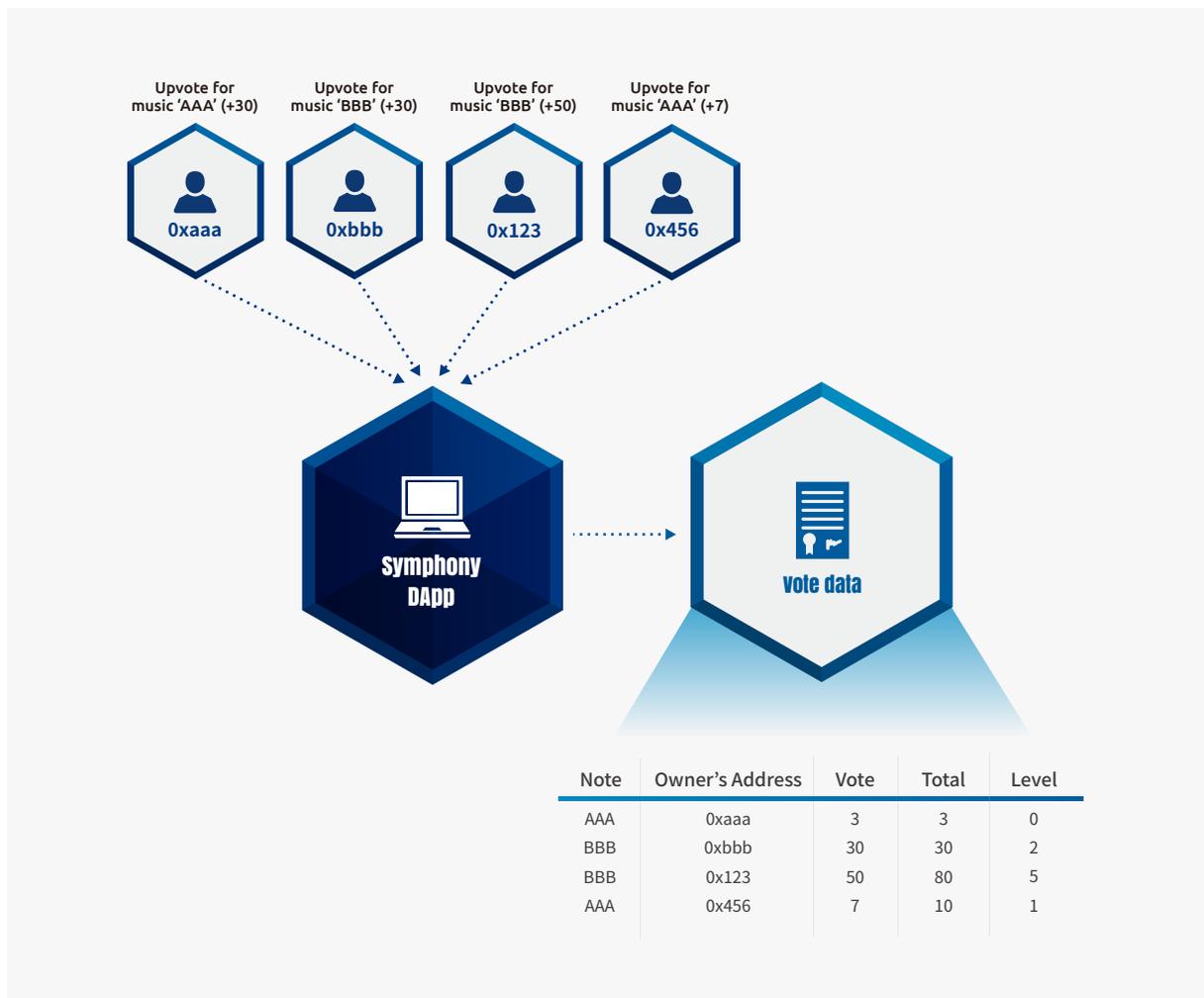




The streamed music is added to the artist's profits. With the exception of a 10% streaming service payment fee, the full amount is allocated to artists according to the number of times the songs are played. Specific details of the streaming profit structure are currently being discussed and will be allocated in a reasonable proportion. Generated profits will be transparently managed through the blockchain and allocated to the song rights holders. Balancing of accounts and allocation for streaming profits will be handled by the system within Ensemble. On the 5th of every month, profits will be allocated according to the ratio of SOMs held.

Symphony's music charts are comprised of two different parts. One will be to keep track of the number of times songs are played and the other will be for listeners to participate in voting for their favorite songs. The chart for tracking the number of times songs are played will be used to prevent collusion among users to fabricate music rankings on the popularity chart.

### Symphony: Upvote / Downvote Voting Process





The 'voting chart' in Symphony rely on users' upvotes and downvotes on songs they listened to. The purpose of this upvotes and downvotes system is to analyze the music preferences of listeners; accumulation of such data, the Maestro system will be able to recommend the right songs for every listener.

Maestro Points (MSPs) are mandatory to use the upvote and downvote feature. To prevent any manipulation of chart rankings, users can only earn MSPs through actual activities within the Maestro platform. MSPs are distributed to users according to the number of MAEs held by each user. Users can receive MAEs either by using the Symphony streaming service or by participating in Ensemble crowdfunding projects. MSPs cannot be exchanged among users. Details regarding the MSP provision of each category are given below.

## 1. MSP provision according to the number of MAEs held

MAE is the currency used in the system. The number of MAE Tokens held determines the number of MSPs provided. The number of MAEs held are reviewed once a week by taking a snapshot of the wallet within Ensemble. MSPs are then provided based on the number of Tokens held. Currently, the number of MSPs to be provided have been set as below, but may be adjusted.

$$\text{MSP} = \text{number of MAEs} \times 0.01$$

## 2. MSP provision according to streaming playtime

The playtime on the Symphony streaming player also affects the number of MSPs given to users. Total playtime is reviewed and converted to MSPs once a week at the time snapshots are taken for Ensemble wallets. Currently, the number of MSPs to be provided have been set as below, but may be adjusted.

$$\text{MSP} = \text{Playtime (seconds)} \times 0.01$$





### 3. MSP provision according to the amount of SOMs held

MSPs are also provided based on SOMs, which help new artists to debut their music and encourage users to participate in crowdfunding. SOMs are received through crowdfunding participation, and MSPs are provided in accordance to the amount of SOMs held. They are provided once a week after snapshots are taken on the amount of SOMs held. Currently, the number of MSPs to be provided have been set as below, but may be adjusted.

$$\text{MSP} = \text{amount of SOMs} \times 0.01 \times 2$$

Users can use the MSPs obtained through the three activities described above to upvote or downvote songs. There are different levels of rank according to the total number of upvotes and downvotes each song receives. The number of MSPs to reach the next higher level increases with each level. For example, if 10 MSPs are needed to go from upvote level 1 to 2, more than 10 MSPs will be needed to go from level 2 to level 3.

If a total of 10 MSPs are needed to reach upvote level 1, and a total of 80 MSPs are needed to reach upvote level 5, users A and B can reach each level using MSPs as shown below.

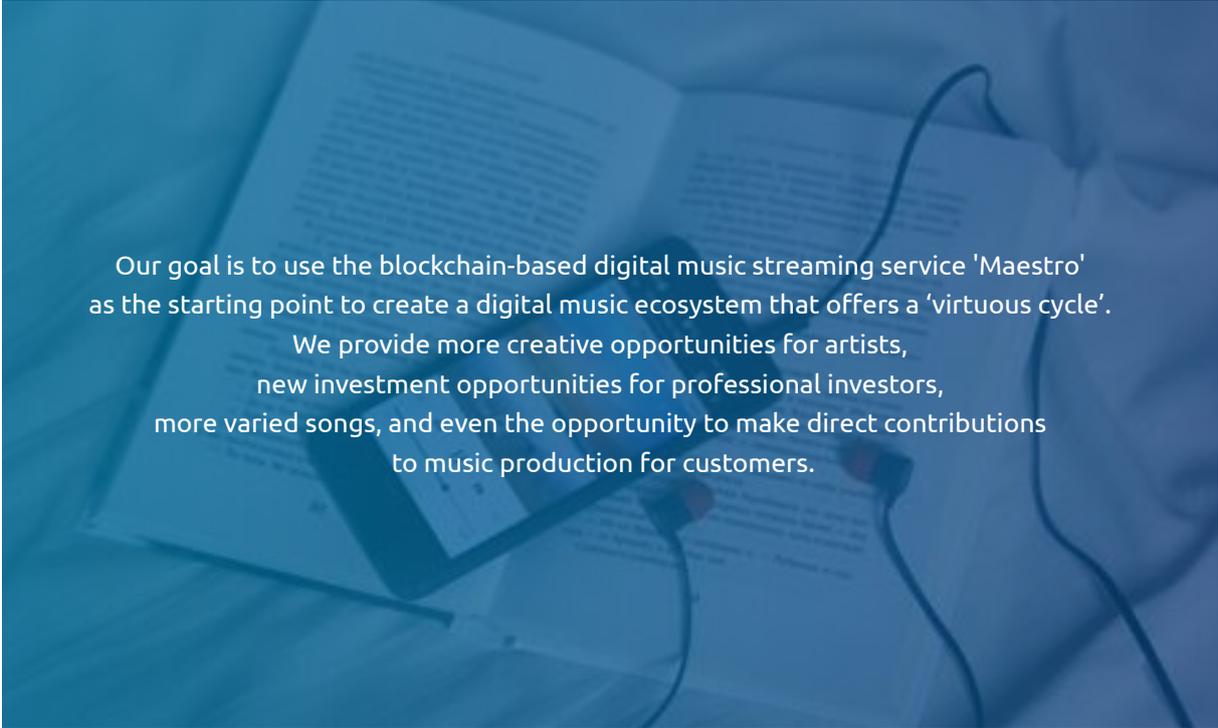
**Upvote level 1 = Total of 10 MSPs = user A 3 MSPs + user B 7 MSPs**

**Upvote level 5 = Total of 80 MSPs = user A 30 MSPs + user B 50 MSPs**





Instead of the one-account one-vote method used by existing music charts, Maestro uses the system described above that combines all user points to set levels. This system encourages users to share their tastes on songs with one another, which will then allow users to share their playlists with those who share similar music preferences. Maestro's voting process is not just a simple popularity vote; it becomes an important curation tool that reflects customers' tastes and allows for personalized music and playlist recommendations.



Our goal is to use the blockchain-based digital music streaming service 'Maestro' as the starting point to create a digital music ecosystem that offers a 'virtuous cycle'.

We provide more creative opportunities for artists,  
new investment opportunities for professional investors,  
more varied songs, and even the opportunity to make direct contributions  
to music production for customers.





## 5. Business Differentiation

Maestro's goal is to achieve stable operation and fast strategic progress of the service by focusing on realistic and fast business operations.

### Focus on New Artists and Small to Medium Labels



Maestro's first targets are new music artists and small to medium album production companies. If funding issues are resolved for these players, a variety of projects can be initiated.

New artists wanting to start projects can raise funds through marketing activities on music communities focused on MIDI production. The vast majority of composers and artists are chosen and debuted by major production companies through these communities. In South Korea, Cuonet, Midiuser.net, and Grafolio are some of the popular communities used by new artists. This system of funding new artists also create opportunities for investors to make an even higher profit when major production companies recruit new artists.

Maestro can also establish cooperative relationships for small to medium production companies. These production companies can more easily secure production funds to produce high-quality music. The vast majority of small to medium production companies currently supplement their production costs through investments from major labels or production companies. Maestro's system can construct an ecosystem where the artists' rights can be protected while high-quality music is produced and distributed worldwide.





### **Artist Funding: Funding for New Artist Support**

We plan to use part of the raised funds by crowdfunding to accelerate the inflow of new artists. The Maestro team will internally choose artists, set up crowdfunding, and invest in them in order to promote an inflow of new artists. If there happen to be excess funds in service and crowdfunding operations, we plan to reinvest them to boost the market even further. The Maestro team is working to find talented artists from all production companies, no matter their size. We are also establishing partnerships and collaborative relationships with different startups to find talented musicians on the streets.

### **Advancing the K-Pop-centralized Global Strategy**

South Korea has the second largest music market size in Asia after Japan. According to 2017 IFPI research, South Korea ranks 8th globally. During the last three years, K-Pop has grown at an average of 17.2% per year. Music content has grown in 2017 by 68% over the previous year. Foreign exportation of K-Pop has been concentrated in East Asia with 98% and is creating a new East Asian culture.

The Maestro team will use this geographical advantage to promote a K-Pop-centralized global strategy. Currently, we are in process of holding discussions and signing MOU contracts with two major production companies and roughly twenty composers and artists. We also plan to receive crowdfunding for production and distribution of quality music by linking up with small to medium companies. We will distribute K-Pop songs that match the tastes of foreign consumers by using the K-Pop curation service within the Maestro System.

### **Funding for Unreleased Songs by Major Artists and Creators**

Composers and artists spend a lot of time and effort to create new music, just to see many of it go unreleased due to limited funds and resources. To enhance our platform even further, we are considering providing crowdfunding for unreleased songs. Composers and artists can increase their profits on their work, while listeners and fans are provided with more varied music selections from their favorite artists.



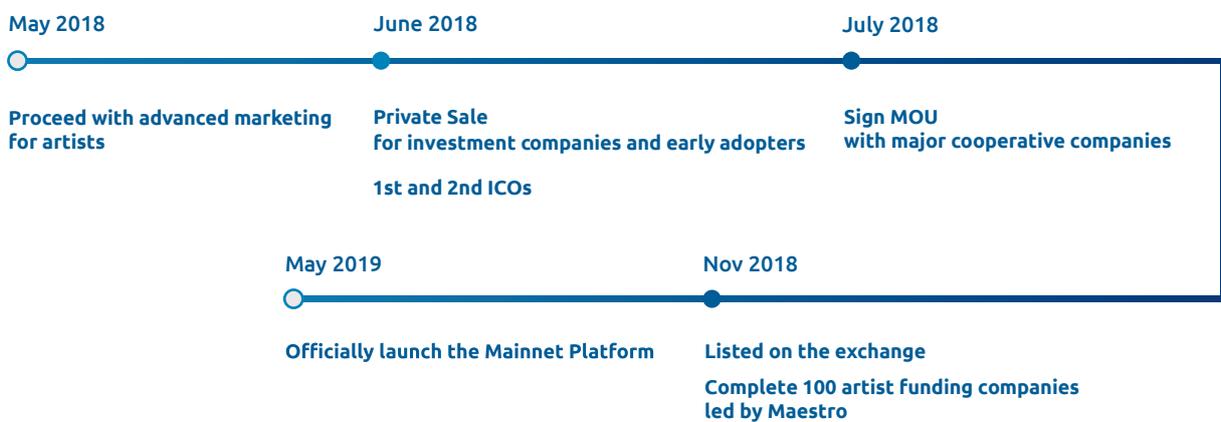


## Expanding Business using Local Partners

Partnerships are vital in the music industry. The Maestro team's initial strategy is based on close cooperation with small to medium production companies. For a global service, higher-level partnerships will be necessary. The top priority for a regional partnership is Japan as the Japanese market consists of roughly 60% of East Asian regional K-Pop exports.

The Maestro team's CEO has experience in music distribution for a Korean VOD service. Our goal is to utilize our experience and expertise to build strong connections and partnerships with Korean entertainment and production companies. Strong connections will aid music distribution and service activation in Japan. We will adopt this strategy to attract Korean production companies and local partners and use K-Pop's global distribution as the basis to expand our music offerings.

## 6. Road Map





## 7. Funding and Token Distribution

### Tokens

MAEs are provided through snapshots of the wallets in Ensemble. Platform profits are allocated once per week. The Maestro team's goal is to decentralize the profit structure through blockchain technology. All platform profits are affected by the number of MAEs held. Unsold tokens will be destroyed. Due to inflation, issuance of additional tokens is expected to take place once per year, and further issuance is prohibited as a rule.

Token Name	Total amount of tokens	Total tokens for sale	Price: 1ETH
<b>Maestro Token(MAE)</b>	<b>1,000,000,000 MAE</b>	<b>620,000,000 MAE</b>	<b>1ETH = 10,000 MAE</b>

\*We will burn all unsold tokens.

### \* Goals to Attain

- Soft cap for ICO: None
- Hard cap for ICO: 62,000 ETH

	Goal	Amount	Bonus Rate
<b>Private Sale</b>	62,000,000 MAE	10% of the total tokens for sale	30%
<b>1st ICO</b>	186,000,000 MAE	30% of the total tokens for sale	10%
<b>2st ICO</b>	334,800,000 MAE	54% of the total tokens for sale	0%

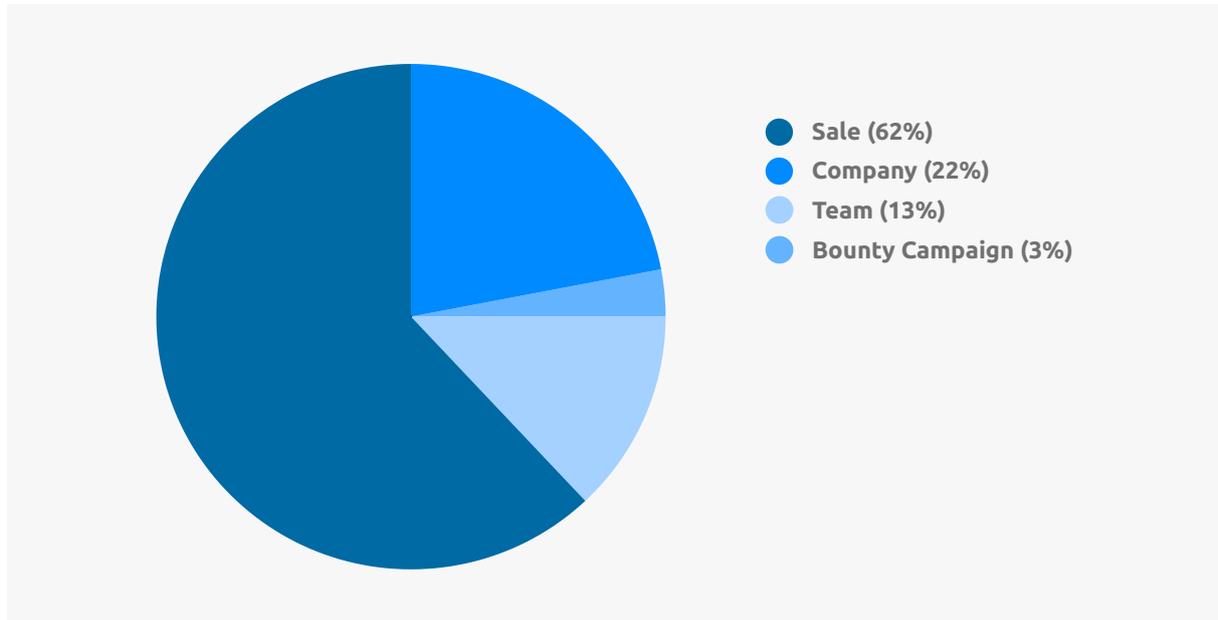
\*Bonus tokens are locked up for one year.

The Maestro team is under way with the project already, with KRW 500 million funding. Consequently, there is no set soft cap, and the project will proceed regardless of whether we achieve the target amount or not. After the 2nd ICO, there will be no additional token sales.





## Token Allocation



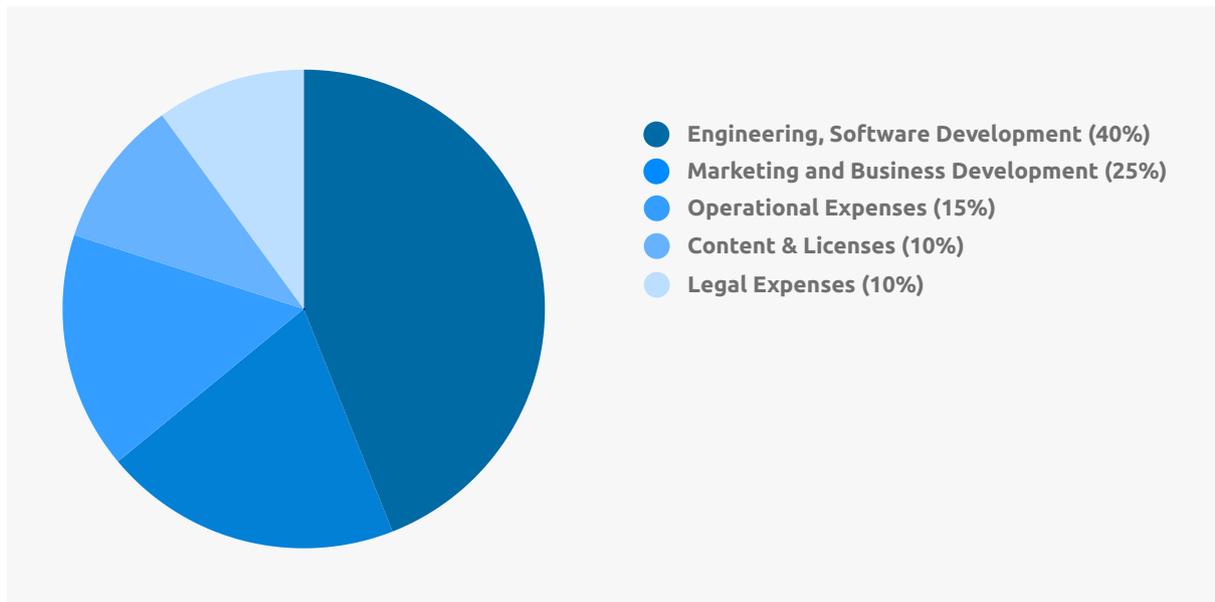
The tokens provided to ICO participants are comprised of 62% of the total number of tokens. Profits from the Maestro platform are returned to token holders, and the system receives no separate fees. Therefore, the company will keep 22% of the total number of tokens for the purpose of Maestro streaming service operation and management. The Maestro team's share is 13%, which is locked up for one year from the date of ICO conclusion. The remaining 3% will be placed on a Bounty Campaign for social media marketing purposes.

The 22% kept by the Maestro company will be used to subsidise the costs below. When using the EOS.IO platform, EOS.IO has a coin stake prerequisite. To operate the service, there will be costs incurred for this coin stake. The EOS.IO platform costs vary depending on the CPU and storage capacity desired by the service operator. There is also the cost of depreciation from the maximum 5%-per-year reward provided to EOS Block Producers (BPs). In other words, there are certain costs for maintaining the service as well as increasing service maintenance costs with new users joining. The company-held tokens will be used for service maintenance costs, and the company will maintain 22% of tokens held each year. If the amount held by the company changes due to depreciation or increased costs from new users joining, the company may issue additional tokens once a year to maintain the company-held share.





## Token Usage after ICO



Total usage of tokens can be divided into five components: 40% on engineering and software development; 25% on marketing and business development; 15% on operational expenses; and 10% each for license fees and legal expenses.

## 8. Mission and Goals

"To create a productive environment where artists are actively supported, a structure in which the rights of creative works are fairly allocated, and an ecosystem where artists and investors can cooperate to share profits"

Maestro's goal is to change the current centralized management system to a decentralized platform among users with blockchain technology. Ultimately, we want to revolutionize the music streaming industry so that the profits returned to artists and investors are more fairly distributed.

Inevitably, there will be obstacles to implementing new technology in an already mature music industry. New technology must harmonize with the current industry's structure and has to be accepted by all its stakeholders. Barriers to entry are even higher due to the strong culture and longstanding conventions of the industry. Therefore, Maestro's team will focus mainly on segments where blockchain technology can be realistically implemented. It must reconcile with the existing bureaucratic music industry to make swift progression.





Our priority is to focus on the 'funding issue,' which is the fundamental reason why the structure of the music industry is inevitably so rigid. To resolve this funding issue, Maestro has implemented Ensemble, a blockchain-based crowdfunding center that allows funding of new music projects.

We hope that artists will no longer give up on high-quality creative works due to funding issues, and we hope to encourage listeners to more actively support these artists as fans and listeners. We hope to eradicate the currently unreasonable music industry structure, in which music labels and distributors collect higher profits than the artists who actually put in time, effort, and creativity to create the music.

The Maestro team will reform the music industry into a structure where many new artists can be born, and eliminate third parties such as labels and distributors to allocate profits to those that are worthy of them: namely artists and fans. Maestro dreams of a music industry where artists are actively funded for their projects, rights and profits of creations are fairly allocated, and listeners and investors grow with the ecosystem through funding. Maestro is moving actively forward toward this future.

## 9. Legal Disclaimer

This whitepaper has been prepared as a reference to provide information on the Maestro platform being designed by the Maestro team. The Maestro team does not guarantee the accuracy of any content in this whitepaper, and cannot bear responsibility thereof. The whitepaper and all related documents contain statements regarding future predictions within the definitions of Article 27A of the Securities Act and Article 21E of the Securities and Exchange Act. As a reflection of the expected value, changes may result from token funding and environmental aspects, and the Company does not bear the duty of fulfilling or providing notification on these changes. If this whitepaper is referenced or used as a basis for decision making, the results of that will be deemed to be from individual decisions. In other words, the Maestro team cannot be held responsible for any loss, damage, liability, or other harm to the individual from the use of this whitepaper. We disclose that there are risks in purchasing tokens, and the purchaser is responsible for any damages.

ICO funding complies with each country's regulations and legislature. Residents in the USA, Japan, and Singapore cannot guarantee ICO projects, and the individual is responsible for any legal issues that arise. Citizens or permanent residents of the USA, individuals with residences in Puerto Rico, US Virgin Islands, and other US territories cannot make guarantees or testify on the purchase of tokens and execution of contracts.





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