

Whitepaper

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1. Introduction

1.1. About the Document

Blockchain technology can do wonders to the current industry, and it has been demonstrated over and over again in various scenarios. VOISE is one such platform showcasing the potential impact the distributed ledger technology can have on the music industry. The whitepaper discusses about VOISE, its tokens and how the platform is going to solve the age-old industry problem when it comes to digital multimedia content distribution and consumption.

1.2. The VOISE Platform

Since the emerge of electronic recording and distribution systems, artists have started finding themselves shortchanged when it comes to remunerations and rewards. And the audience are spoilt with alternative choices to access the digital content, but most of these are either expensive, which has forced many to opt for illegal downloads while encouraging piracy in the process.

The high cost of digital content can be attributed to middlemen who take hefty commissions and end up benefiting from the expense of both artists and consumers. VOISE, through its innovative platform and the use of new-age technology is attempting to address the problem by cutting out middlemen and optimizing content management and delivery.

The VOISE ecosystem, built using Ethereum protocol is a highly secure and transparent music and digital content distribution and streaming platform with one-of-a-kind model that shares 100% of sale proceeds with the artist – charging zero commission or processing fees. At the same time, the platform also ensures the benefits are passed on to the users in the form of reduced prices.

Many believe that blockchain platforms and cryptocurrencies are complex technological creations which are not easy to use. They believe that for someone to be able to understand the technology and use any such platform should have advanced technical skills. VOISE addresses these apprehensions by providing an easy to use interface and support for multiple cryptocurrencies as well as fiat to make it as good as any other conventional music streaming service out there in today's market.

The team behind VOISE have conducted extensive research into the industry to identify the problems. They are implementing these learnings to develop a platform that can address most of the issues. The VOISE ecosystem is powered by its own VOISE ERC20 tokens, which acts as the primary mode of transaction on the platform.

An overview of VOISE platform features include-

Search Engine – Allows users to browse for artists, albums, genres, playlists, or songs by name. **Discover** – Dedicated section to find new discoveries and recommended content you might want to listen.

Top Songs – Lists the top songs of the month based on the number of purchases.

Recommended – Recommendations based on purchased content, songs by an artist already listened to, content from the same genre and similar labels, content which users listening to similar content enjoyed.

New Releases – *Latest release, sorted by date.*

Genres – Classification of content into genres and user made labels.

Playlist - User created list of music containing paid content that hasn't been purchased. Includes free sample.

Radio – Global DAO Radio and Specific genre DAO Radio (explained in section 5) **Profile** – Relevant information about the user along with option to upload or edit content.

1.3. Understanding the Music Industry and its Problems

The introductory section of VOISE platform already gives a sneak peek into the problems plaguing the music industry. The whole industry is dependent on artists and musicians who create the work of art. They spend most of their lives on creative pursuits, to produce melodies and songs that are loved by virtually every human being on the planet. For most artists, the music they create is their only livelihood, unless they are rich and famous and have popular record labels paying them a fortune. But the ones who have some famous record label backing them are just a handful. Others keep trying to find ways to sell their work and make money out of it.

The increased use of electronic media and connected devices has made it essential for the artists to have their songs online, available for people to purchase and download or stream directly from the online streaming platforms. Those who don't have a record label or a media house backing them are forced to find their own ways to distribute the music they create. While the online streaming and content distribution platforms have made it easy for the artists to make their work available to the masses, they come with a cost in the form of hefty fees or commissions on the sales made. These charges range from anywhere between 15% to 40% for digital album downloads [1]. The charges on most of the streaming services is much higher.

Due to these huge commissions and fees charged by these third-party platforms, artists are forced to choose between increasing the cost of their work or settle for lesser pay. If they decide to increase the price of their tracks, they run the risk of people not purchasing their tracks which could as well mean that they may not make any money at all. So, majority of the artists are forced to settle for smaller payouts. Even then, a new artist could still run the risk of not making any sale at all, due to their obscurity and the pricing of the albums or sound tracks.

The intermediaries, in the form of music streaming services, online music stores and other content distribution platforms have become a vital part of the music industry mainly due to their existing userbase, strong marketing and a wide range of music offering. However, none of these conventional platforms are designed keeping the best interests of the artists or the users in mind.

Music enthusiasts on the other hand have their own set of problems with the existing model. Starting with higher prices, low frequency of new content updates, lack of fresh talents, geographical barriers for accessibility and payment support to name a few. The collection of music available for download or streaming are almost the same on various conventional platforms. Those who are constantly looking for new stuff to listen to each time are left disappointed as many independent and small-time artists don't take the initiative to get their music listed on them due to cost constraints and more. Also, the use of fiat payment gateways on conventional music streaming platforms creates a geographical barrier as the provided payment solution is not universal and doesn't work in all the countries across the world. Thus, depriving a significant population from accessing the services.

Few projects in the past have attempted to solve these challenges by creating their own versions of blockchain based music and digital content sharing platforms. However, they have failed in their mission due to lack of adoption among the users and artists as they are aimed only at experts and tech-savvy people who are familiar with technical aspects of blockchain and cryptocurrencies.

Even though the solution for the music industry's problems is known, no one except VOISE has so far creating a simple yet effective platform that can be used by everyone irrespective of their understanding of cryptocurrencies and/or blockchain technology.

2. Core Objectives

The main objective of VOISE team is to create a platform that can serve the purposes of both the artists and users. The platform built over Ethereum protocol makes use of smart contracts for automation and provides an easy and cost-effective way to sell and stream music. Unlike other similar platforms, VOISE incorporates a simple yet efficient user interface that allows the users to browse and listen to music just the way they have been doing on conventional music platform. The multi cryptocurrency and fiat support makes the platform even more convenient for the users.

2.1. Offering Solutions and Opportunities

VOISE is bringing in the tried and tested decentralized application model into the music industry. Until now people had to rely upon third party centralized platforms and with such a model comes the middlemen and intermediaries who charge an additional hefty commission which eats into the earnings of the artists. This in turn also bears an affect on the actual pricing of the music over the streaming service or download platform, to be borne by the users.

The use of blockchain and smart contracts within VOISE makes it possible for the platform to overcome all the challenges thrown at it. Starting with the use of cryptocurrencies alongside fiat and automation of payments and settlements between users and artists. It also helps the platform maintain low operating and transaction costs and to ensure that the platform is accessible to everyone, everywhere.

2.2. Improving Music Selling Services

The VOISE platform is designed to improve the music industry, especially the content delivery and streaming part. The decentralized platform offers unprecedented levels of flexibility to the main stake holders. By providing complete freedom to artists to upload their tracks and set their own pricing, it encourages more people, both big and small to register on the platform and start selling music. And, the absence of third-parties in the ecosystem reduces cost overheads in the form of commissions, the benefit of which is ultimately passed down to the artists and users.

The payment methods and global nature of the platform owing to the universal nature of the platform's underlying blockchain and cryptocurrency technology makes it easier for users from anywhere across the world to avail the music streaming service. As the platform makes it easier for artists to sign up, the choice of music available for users is virtually endless.

They can pick from a long list of genres and artists, famous or otherwise. The VOISE platform also acts as a music discovery tool to find the latest tracks from some of the unheard talents.

In addition, VOISE also has introduced the Global DAO Radio where users of the platform can vote the best songs, and get to know new ones based on the others' votes.

By utilizing decentralized hosting, VOISE platform also combats censorship by governments and other entities which may otherwise end up taking down content to suit their religious, political or personal agendas. The very feature also makes the platform hack-proof to avoid any data loss due to unforeseen security breaches which in a conventional setup may result in the users personal and payment information being compromised or files being deleted or pirated by hackers and cybercriminals.

The VOISE ledger keep track of all transactions that has ever happened on the platform to maintain transparency and accountability. With few content monetization opportunities already in place, VOISE will continue to implement new ways for content creators to make money over the platform.

2.3. Helping Artists Make a Living

Artists and musicians form the backbone of the music industry and they are in most cases underpaid for their efforts, and their creativity is undervalued. It is mainly because of the conventional, centralized music discovery and streaming platforms that aim to maximize profits. These platforms act as third-party intermediaries, taking a hefty fees and commission from the revenues generated by the sales, which comes from the payment that's owed to the artists. An artist who takes months or sometimes years to come up with a great album might have to make do with meagre earnings in a conventional setting as they are forced to shell out anywhere between 10% to 40% or more as commissions. If the album sales aren't that great, then they might as well be left without any money. These conditions make it hard for artists to stay motivated and indulge in their artistic pursuits. VOISE prevents such a scenario by eliminating the need for middlemen and enabling the artists to gain 100% of all the sales proceeds minus any transaction fees incurred over the Ethereum blockchain.

It is hard for an artist to become famous and well-known without the support of a strong marketing team or the backing of a popular record label. There are so many talented singers, musicians and artists who are out there who don't have enough resources to promote their work or themselves due to lack of funds. The only way for them to get their name out is by taking the task of marketing and promotions upon themselves. VOISE provides an ideal

environment for them to get noticed by uploading their music on to the platform. All they have to do is register themselves on the music streaming platform, create a portfolio and upload their tracks and set a price for them. They can also opt to provide users with a sample audio clip of up to 30 seconds so that they can listen to it and decide whether they wish to purchase the track or not.

Once the tracks are listed on VOISE, they can be searched by anyone using the platform. They can listen to the sample track and purchase the whole song or album if they like. If the artist doesn't want to charge the user, they can choose to provide the tracks for free and seek donations instead.

VOISE is an easy to use blockchain based music streaming service which doesn't require the content creators and artists to create wallets as the platform by itself acts as one. By uploading the content on the platform, artist can make their work available worldwide in no time. Once the artist makes a sale, they will receive 100% of the proceeds in the form of VOISE tokens. These can be easily converted to fiat or other cryptocurrencies on any of the listed exchange platforms.

2.4. Promoting Cryptocurrency and Blockchain Technology

VOISE is one of the successful cryptocurrency projects of 2017. The platform has introduced blockchain technology into the music industry to encourage the growth of the ecosystem while solving some of the issues regarding the well-being of the artist community. At the same time, the VOISE team has also made it their mission to promote the use of cryptocurrencies among the general public. In order to familiarize people with cryptocurrency usage, they have included support for various payment options alongside the platform's native VOISE tokens. Even though VOISE tokens remain the primary mode of value exchange on the platform, people can still purchase music using other cryptocurrencies and even fiat. By including fiat payments, VOISE is ensuring that those who are not used to conducting cryptocurrency transactions aren't left out and at the same time, it also acts as a gateway for them to enter the blockchain and digital currency domain.

Once they are onboard, after making fiat payment, they are gradually sensitized to VOISE tokens, giving them an opportunity to learn how to handle and manage cryptotokens. The multi-currency support will continue to be available for a while until everyone is comfortable using VOISE tokens on the platform.

The artists and other stakeholders in the music industry also stand to gain some valuable insights from the initiative. As VOISE continues to grow, the leading record labels, production houses and distribution agencies will also start providing their digital content over the platform. And eventually, they are expected to implement distributed ledger solutions in their operations for efficient distribution and to combat piracy.

In the near future, VOISE plans to extend its focus on other forms of digital content as well.

When compared with other popular music streaming and download platforms, VOISE fares well then most of them. A comparison between VOISE, Spotify, Apple Music and Bandcamp shows the technical superiority as well as user-friendliness of the platform against competition.

Features	Voise	Spotify	Apple Music	Bandcamp
Decentralization	Yes.	No.	No.	No.
Open source	100% open source under GPLv2.	Some open source clients. Closed backend.	No.	No.
Blockchain backend	Every transaction is viewable on the chain.	No.	No.	No.
Streaming & Downloading	Yes, keep your songs forever.	On some devices, subject to subscription.	Subject to subscription.	Yes, Keep your songs forever
Free of subscription	Yes.	No.	No.	Yes.
Multiplatform	Yes.	Yes.	Yes.	Web client, unofficial web wrappers
Artist keep 100%	Yes.	No, much less.	No, much less.	85%.

3. Technology

VOISE is an anonymous, decentralized, people-oriented music streaming and distribution platform. The platform is built over tried and tested Ethereum protocol and Inter-Planetary File System (IPFS). Transactions on the platform are mostly handled using its own VOISE tokens – an ERC20 based cryptocurrency which is now one of the most sought-after token creation standards.

3.1. Why blockchain?

It is a question which everyone will ask? And the answer is simple. Blockchain technology is the future of the economy and given the various advantages of cryptocurrencies and blockchain technology it is in the best interests to ensure that the industry keeps up with the rapidly changing technological landscape.

The choice of blockchain platform serves a variety of purposes. Starting with the possibility of increased automation with the help of smart contracts. The cryptocurrency blockchain also provides additional layer of security along with a certain degree of anonymity to the users on the platform. The immutable nature of distributed ledger technology ensures accurate record keeping while maintaining transparency and data integrity. The blockchain supported peer-to-peer decentralized network is used to host all the content to further strengthen the security and privacy.

The implementation of blockchain technology comes with an associated cryptotoken – in this case it is the VOISE token which is used for all the transactions happening over the platform. By using cryptocurrency as mode of value exchange, the platform easily overcomes the geographical and technical barriers that prevents flawless use of fiat currency payment solutions across the world. Even though VOISE supports fiat currency payments, the multi-cryptocurrency payment support takes precedence over it. The support for cryptocurrencies like Bitcoin, Ether, VOISE and others enables users from any part of the world to sign up, purchase, download and listen to music on the platform.

3.2. Ethereum and the smart contract system

The VOISE ecosystem is built on Ethereum protocol – the most favored blockchain environment for building decentralized applications. The Smart Contracts are a revolutionary technological development that allows developers to create binding contracts that get executed when the predefined conditions are met. These smart contracts have paved the way for increased automation on blockchain platforms.

The same is being used by VOISE as well to maintain a record of the artists and their listed albums, tracks etc. The smart contract is instrumental in ensuring proper allocation of revenues among the artists whose tracks were purchased by users.

In the case of bands, or tracks created by multiple artists, the VOISE smart contract ensures automatic distribution of revenue among all the band members (artists) as per the predefined percentages. For example, if an album by a three-member band is sold, the smart contract within the platform can divide and distribute the proceeds individually among all band members in whatever percentage is designated for each individual. Radio DAO, a prized feature of VOISE also implements a smart contract to rate the votes gained by each track based on the staking of each voter.

3.3. InterPlanetary File System

Until recently, all online content had to be stored on individual servers or a handful of predesignated servers on the cloud. The practice, even though practical and efficient, has its own drawbacks. The chances of data getting corrupted or even stolen by hackers and cybercriminals is high. The InterPlanetary File System (IPFS)^[2] is a distributed cloud storage solution where the network users contribute their processing power as well as storage space on their hard drives for distribute data storage. The IPFS protocol ensures that the files that are stored on its cloud are split, encrypted and stored on the hard drives of participating computers on the network. These files can be retrieved only with the help of the right key, ensuring that even if someone compromises one of the participating computers, all they can probably find is partial, heavily encrypted files that is of no use.

The music uploaded by artists on VOISE will be indexed by the smart contract as a hash, which is a permanent, immutable record on the underlying blockchain. The hash represents the ownership of the track. Records of track purchases by individual users will be tracked in a similar fashion, which makes sure that once a person buys a track or an album they can access it at any time without having to subscribe to any service by paying a monthly fee, like in the cases of many conventional music streaming or download platforms.

The very IPFS system also shields the content from being censored or illegally downloaded or accessed by governments or hackers. In the case of a discrepancy, the network will be alerted by a change in the root hash, triggering the platform to search for new nodes to maintain the integrity of records and hence safeguarding access to the files and the files themselves in the process.

4. Token and functionality

The VOISE platform is built over Ethereum protocol and uses ERC20 capable native VOISE tokens for transactions on the platform. The Token specifications are as follows

Token Name: VOISE Token (VOISE) **Total Supply:** 825,578,000 VOISE

Decimals: 8

Contract address: 0x83eEA00D838f92dEC4D1475697B9f4D3537b56E3

Supply Style: deflationary **Format:** ERC20 Compliant **Tradable Between Users:** Yes

VOISE tokens are already listed on some of the leading exchange platforms. The VOISE team is in the process of getting the tokens listed on more exchanges and soon it will be made available on every leading exchange and trading platform in the cryptocurrency market.

4.1. Spending tokens on the VOISE Platform

The VOISE tokens are the primary medium of value exchange on the VOISE decentralized music streaming platform. The VOISE tokens, based on Ethereum ERC20 token standard can be used by users to purchase the music content that is made available by artists on the platform. The VOISE tokens can be purchased against fiat, bitcoin and other cryptocurrencies from the supported exchanges and trading platform on which the token is listed. The VOISE tokens can be easily stored on the user's preferred device using a personal desktop wallet, ERC20 compatible web-based wallets like MyEtherWallet or within the VOISE platform in their respective accounts.

All transactions are recorded on the VOISE blockchain and can be easily verified using the VOISE block explorer. Unlike other music streaming platforms, VOISE doesn't charge monthly subscriptions for users to access music. Any purchase made by the user on VOISE platform can be accessed at any time by just logging into the platform.

With the tokens already listed on exchange platforms, token holders can also trade the cryptocurrency against other cryptocurrencies to make profits or sell them to get an equivalent value in fiat currency.

4.2. Blockchain backed transactions

The blockchain-based music streaming and download platform, VOISE has an entire ecosystem built around it. The platform has its own blockchain and a block explorer that allows users to query any transaction ever conducted on the platform. Users can find out how much an artist is earning and how much a particular user has spent.

The public blockchain provides transparency to the platform and it can also be used to verify peer-to-peer VOISE token transaction between token holders, just like Bitcoin and Ethereum blockchains.

4.3. On Exchange Services and Value

VOISE, with its blockchain enabled platform is attempting to disrupt the global music industry which is approximately worth \$15.7 billion^[3]. With a solid, transparent model that truly adds value to the existing industry standards, it showcases a huge potential, which is recognized by the cryptocurrency community. The VOISE tokens are presently listed on five leading exchanges and it is being actively traded by the community members.

The tokens have gained ground in the initial days of launch, with the price increasing 10-fold during the first three months of trading. With lots of new upgrades in store, the value of VOISE tokens is expected to further strengthen in the near future. The VOISE team is working on getting the token listed on all the leading cryptocurrency platforms in the world to make them easily accessible to everyone.

5. VOISE DAO

VOISE has incorporated the DAO – Decentralized Autonomous Organization concept into the application. The concept popularized by Ethereum after it announced what's probably the first crowdsale in the cryptocurrency sector allows the stakeholders of the decentralized network – token holders to participate in the collective decision-making exercise through voting. Only those with sufficient token balance in their wallet will be eligible to take part in the process.

5.1. Voting

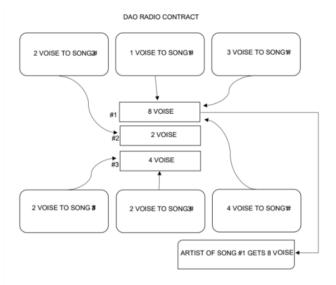
VOISE has made allowance for voting on the platform. The voting mechanism creates a democratized decision-making atmosphere for key developments in the platform. At present, this mechanism is implemented in the Radio DAO function, with the possibility of extending it to other new features to be introduced soon.

5.2. Radio DAO

Radio DAO is the implementation of VOISE's DAO feature to rank songs based on community votes. Radio DAO is a global playlist governed by a DAO smart contract where users vote for the next song by staking their tokens. The value of votes is determined by the number of tokens held by the voters. A vote by a member with higher number of tokens holds more value than that of others with lesser tokens. The total number of tokens staked against the song will decide the priority in which it will be played on the platform. The funds collected though the voting process will be allocated to the artist who uploaded the song on the platform, thereby providing an additional opportunity to monetize the content.

The VOISE Radio DAO acts like a normal radio station where the users can listen to the song only when it is being played. The songs played on Radio DAO can't be downloaded and if somebody wants to download the song, they will have to browse through the platform, choose the song and make necessary payment as fixed by the artist. Radio DAO is designed to encourage content discovery for users and as a fun way for users to promote their favorite songs to the community.

The flow of information within the Radio DAO contract is shown below in the figure



In addition to the Global Radio DAO, the platform also has genre-specific Radio DAO, playing tracks of the respective genre of music. E.g., Rock Radio DAO only plays songs belonging to the rock genre, which is similar to the Pop Radio DAO playing tracks from "pop genre".

6. VOISE Masternode

VOISE is committed to make the whole exercise profitable to artists, users and token holders. While the Radio DAO offers an additional stream of income to the artists, the recently introduced Masternode helps users gain returns by committing a minimum of 600,000 VOISE tokens over a period of one month or 30 days. Once the tokens are committed, the token holder is considered eligible to run a Masternode and gain a share from the profits generated by the platform.

6.1. Profit for holders

In order to incentivize the community members for their role in the platform's growth, VOISE will be distributing 80 % of the total revenues among those token holders. The percentage of revenue distribution received by users will be proportional to the number of tokens committed by them to the VOISE Masternode.

6.2. Policy + SM (Smart contract)

The VOISE Masternode initiative encourages the users to lock a minimum of 600,000 tokens for a period of 30 days using a smart contract which is part of a special decentralized application that governs the locking and distribution of funds without any human intervention. Based on the tokens locked, the same contract also decides upon the distribution of revenue among the participating token holders.

7. Conclusion

VOISE has achieved a lot in the days following its launch and with the detailed development roadmap laid out, it will be soon introducing new features in the upcoming versions of the platform. The platform has so far forged some important strategic collaborations with some of the leading organizations and blockchain businesses. In the coming months, the platform aims to extend its collaboration with other players in the market, integrate Coinomi and Tick artist verification system. The VOISE platform will be soon available for Android and Apple smartphones and tablets.

7.1. Mid-term vision

In the next 6 to 9 months, few significant upgrades await VOISE. Users will soon be able to customize their dash board and access podcasts on the platform. The much-awaited DAO Radio feature will also go live during the same time frame.

To encourage user adoption and to get the word out about the platform and its benefits, VOISE will ramp up its advertising and marketing initiatives. The platform will also introduce instant cryptocurrency exchange for the benefit of artists and users. The ones who are paying or getting paid in VOISE tokens will soon be able to exchange the tokens for other cryptocurrencies of their choice.

A new version of Masternode also awaits implementation within the next 6-9 months frame.

7.2. Long term vision

By the end of this year VOISE will have fiat payment system working in conjunction with other cryptocurrency payment options, including VOISE tokens. With the fiat implementation, the platform will later decide on the applicable exchange fees for fiat to cryptocurrency conversion within the platform.

As a part of its community building initiative, VOISE will be organizing public events and meetups across major cities in the world. These events will be supplemented with the second round of advertising to gather more users.

With all these initiatives VOISE intends to create a new norm in the \$15.7 billion industry by empowering the artists and offering a secure and easy to use music streaming services for the users. The platform plans to further diversify to include other forms of digital content alongside music.

8. Roadmap

Q1 2018

- Forging new partnerships in the music and cryptocurrency industries
- Adding more collaborators on the platform
- Coinomi Multi-cryptocurrency wallet integration
- Artist Verification System
- Launch of VOISE Mobile Client

Q2 2018

- Inclusion of customization option for users
- Addition of Podcast section
- DAO Radio launch
- Advertising Phase I
- Inclusion of instant cryptocurrency exchanges
- Release of Masternode VX-600K

Q3 2018

- Implementation of fiat payment support
- Fiat exchange fee distribution round for token holders
- Public events and meetups
- Advertising Phase II
- VOISE Explorer "4R-TIST" Launch

References

- 1. Calculate Your Earnings from Spotify, Apple Music, Pandora, Amazon, Google Play & More https://www.digitalmusicnews.com/2017/04/25/streaming-music-royalty-calculator-spotify-apple-music-pandora
- 2. Interplanetary File System https://ipfs.io
- 3. Global Music Report 2017 http://www.ifpi.org/downloads/GMR2017.pdf