

Music Blockchain – Fair and Transparent Compensation to Artists for Streaming of Online Music

MOTIVATION

The Republic of Malta is hosting a pan-European initiative of artistic rightsholders, digital rights exploiters and regulators - working alongside with the European Commission, the European Parliament, and blockchain technology providers on the implementation of Directive 2014/26 – with aim to facilitate the development of a new artist-centric, technology-enabled solution for the collective licensing of intellectual property rights that are digitally exploited. The initiative initially focuses on the administration of music publishing rights, but it is expected to provide a core infrastructure based on which similar systems can be built for the licensing of other types of creative work, ranging from visual art through 3D printing designs to IT source code.

In the case of music rights licensing, the project’s aim is to deliver value to performers, composers and songwriters through greater transparency, near instantaneous payment and vastly reduced administrative costs. Value to those exploiting music online will stem from much simplified licensing processes and from the opportunity to pay rightsholders instantaneously and without the usage of intermediators. CMOs will benefit from a state-of-the-art infrastructure being made available to further improve services to their members.

CHANGED INDUSTRY DYNAMICS PROVIDES A POSSIBILITY TO REVISIT THE CURRENT COMPENSATION SYSTEM TO CREATIVE RIGHTSHOLDERS FOR STREAMING OF ONLINE MUSIC

The digital revolution in the music industry provides tremendous opportunities; recording artists, composers and creatives in many other fields now have the power to reach and connect directly with their fans at a scale never seen before. In parallel, however, many have also observed their work become devalued - while use of their work has increased significantly, incomes have not, and despite the vast volumes of data being generated through consumers’ use of online services, there is limited transparency for artists and composers as to how their work is actually being used online.

The creation of a fair and transparent system for collection and distribution of royalties to creative rightsholders for streaming of online music have been a top priority for the music industry during the last decade. With the EU Directive 2014/26 – Collective Management of Copyright - the European Commission aims at ensuring that rightsholders have a say in the management of their rights and envisages a better functioning of collective management

organisations (CMOs) as a result of EU-wide standards. The Directive also creates a level playing field for the multi-territorial licensing of online music services.¹

The Directive has now been put into legislative action in the majority of EU member states. The Republic of Malta sees it as an obligation to the industry and the EU to bring the legislation to life and is now spearheading the Music Blockchain Initiative, with the aim to support a fairer and more transparent system for compensation of creative rightsholders for streaming of digital music. It will, thus, initiate a novel collective licencing approach for online music rights exploitation, and make this approach, at their discretion, available to rightsholders, exploiters, and CMOs.

MUSIC BLOCKCHAIN: DATA REPOSITORY & CLEARING HOUSE – PROVIDING FAIR AND TRANSPARENT COMPENSATION TO CREATORS OF MUSIC

The Music Blockchain Initiative is built around two constituent parts, represented by two legal entities:

- **The Music Rights Data Repository** - An open, public, authoritative repository of music rights ownership information that will operate as a social enterprise on a not-for-profit basis. The Data Repository will increase the transparency regarding rights ownership and aims to remove commercial and political barriers for collaboration in the industry. Under the leadership of the Republic of Malta, it is envisioned to apply for an ERIC with the European Commission to govern the Music Rights Data Repository.
- **The Music Rights Clearing House** – A commercial enterprise, acting as an independent management entity that issues online exploitation licences and operates a technology platform that matches the usage of music online from digital service providers with rightsholders from the Music Rights Data Repository, to create an payment file that ensures that rightsholders are correctly reimbursed based on the actual exploitation of their rights.

The two legal entities will jointly enable the collective management of online music rights on a pan European basis - in concert with the respective CMOs, and in alignment with civic society initiatives like the Open Music Initiative, and Mycelia.

THE MUSIC RIGHTS DATA REPOSITORY'S MAIN OBJECTIVES:

- Provide and operate a platform to which any person that owns or controls music publishing rights can easily contribute their music rights data;

¹ European Commission: http://ec.europa.eu/internal_market/copyright/management/index_en.htm

- Increase the transparency regarding rights ownership by providing platform access to anyone who wishes to identify the owner(s) of a particular composition from a sound recording embodying that composition. Commercial enterprises will be charged a fee for this service;
- Increase quality of data on music rights ownership that today is notoriously poor by matching unassigned work with rightsholders and harmonize inaccuracies in existing data with help from technologies such as machine learning;
- Mediate disputes between rightsholders regarding ownership of works by notifying all affected rightsholders for works that have been “claimed” by several parties.

THE MUSIC RIGHTS CLEARING HOUSE’S MAIN OBJECTIVES:

- Operate as an aggregator and licensor of music publishing rights (based on integration with Music Rights Data Repository) and thus intermediate between rightsholders that wish to license their rights for online exploitation, and operators of digital services that wish to exploit those rights (“exploiters”, or “service providers”);
- Allow rightsholders that have contributed their rights to the Data Repository to easily authorize the licencing of those rights. All rights will have a publicly transparent per play rate associated with it;
- Enable service providers in an easy and modular way to build the right licence for their service. To spur innovation, test and experimental licences will be available for new business models;
- Match the exploration of rights of service providers, with owners of the publishing rights embodied in the sound recordings available in the Data Repository on a daily basis in a timely and accurate manner, providing service providers with a payment file to settle royalty payment directly with the rightsholders. Service providers will be charged a transaction fee for this service;
- Provide transparency and insights for rightsholders on how their compositions are being consumed on service providers’ platforms;
- The Music Rights Clearing House may do so on its own account, as well as on behalf of CMOs;

MUSIC BLOCKCHAIN - SYSTEMIC ADVANTAGES

The Initiative shall transform the music industry in Europe and, potentially, around the world. Since The Music Rights Data Repository is expected to be operated as a social enterprise, potentially using the legal status of an ERIC, commercial and political barriers

for collaboration that historically have limited the success of preceding initiatives can be removed.

Thus, a successful implementation of the initiative would provide a number of substantial improvements over the current compensation system:

- Increased transparency in many fields, such as rights ownership, usage of creative work and regarding what rightsholders actually are getting paid for;
- A trackable link between usage of work and compensation ensure that artists are fairly compensated;
- Pay-out of royalties can be accomplished on a near-instantaneous basis instead, comparing to the several months it takes today;
- Reduced administrative costs, leaving more money for rightsholders and allowing for lower per play rates to service providers;
- A fair and more transparent compensation system that stimulates young artists to reach out to a broader audience.

BLOCKCHAIN – ENABLING SECURE, TRANSPARENT AND AUDITABLE DIGITAL CONTRACTS FOR TRANSACTION OF E.G. DIGITAL RIGHTS

There is a need for a technology backbone behind the two entities. Matching the requirements for technology resulted in that blockchain was identified as the most suitable technology for the initiative, enabling benefits such as security, transparency and auditability.

The blockchain technology was first introduced as the underlying technology behind the digital currency experiment Bitcoin, enabling secure online transactions without any middle hand such as involvement of a traditional bank. It was soon realized that the blockchain technology could be separated from Bitcoin and used in all kinds of other cooperative projects involving several not-related entities².

Blockchain operates as a distributed database (storage in multiple locations) with the difference of using control mechanisms to maintain consensus about the existence and status of shared facts in “trustfree” environments (i.e. suitable when the participants hosting the shared database are independent actors that don’t trust each other)³.

The database could be visualized as a network of nodes that all store the same information. If one node stops working, there is always other nodes available containing the data,

² Harvard Business Review: <https://hbr.org/2017/02/a-brief-history-of-blockchain>

³ Medium: <https://medium.com/@sbmeunier/blockchain-technology-a-very-special-kind-of-distributed-database-e63d00781118>

enabling a system with zero downtime. The nodes maintain a continuously growing list of ordered records, called “blocks.” A block is the ‘current’ part of a blockchain which records a transaction and once completed goes into the blockchain as permanent database. All transaction made in a fixed period of time are written chronological to a block and the new block is added to the chain in a chronological order enabling full transparency and auditability in regards to ownership and how it has changed over time.

To use conventional banking as an analogy, the blockchain is like a full history of banking transactions. The transactions are entered chronologically in a blockchain, just the way bank transactions would look in a ledger. Blocks, meanwhile, look like individual bank statements.⁴

Innovation in blockchain technology continues and by now there is a specific kind of blockchain technology that enables “smart contracts”. It builds little computer programs directly into blockchain that allows - to stay with the financial services example - financial instruments, like loans or bonds, to be represented, rather than only the cash-like tokens of the Bitcoin.¹ These contracts operate without any possibility of censorship, fraud or third-party interference.

Working together with blockchain technology providers, blockchain technology allowing smart contracts has been chosen as the suitable technological backbone for the two entities. The technology can work semi-autonomous without a lot of overhead, unmatched by other technologies. The smart contracts could, with time, also be used as backbone for administering the digital exploitation of music rights.

SO HOW WILL THIS PRACTICALLY WORK?

- Any rightsholder can, through a simple web interface, contribute their rights ownership data with information regarding share of ownership and geographies to the Music Rights Data Repository;
- It will be easy for rightsholders to manage their rights and update their ownerships;
- In the event of conflicting ownership claims being provided by rightsholders, all affected rightsholders will be notified and the ownership record will not be considered authoritative until the conflict has been resolved, thus creating a “Prisoner’s Dilemma”;
- Potential rightsholders will be allowed to claim partial or full ownership of tracks from a list of “unmatched” sound recordings, using machine learning to generate candidate lists for each rightsholder;
- The Music Rights Clearing House shall, potentially on a daily basis, receive usage reports from service providers, identifying each sound recording played on that service to match it with the Music Rights Data Repository, thus enabling the service providers

⁴ Investopedia: <http://www.investopedia.com/terms/b/blockchain.asp>

to compensate rightsholders in a timely and accurate manner;

- Rather than deducting a management fee from rightsholders' royalties, the Music Rights Clearing House will charge a fee to service providers for its data reconciliation services, based on the plays of matched tracks;
- Due to that the Music Rights Clearing House platform is mainly technology driven, total administrative costs is expected to be reduced from today's 10-15% of royalties down to 5%, resulting in increased payments to rightsholders and lower per stream cost for digital service providers;
- Service providers will be able to reduce their risk provisions dramatically due to substantially increased compliance;
- Building the two entities based on blockchain technology will enable rightsholders to transfer their rights into the Music Rights Data Repository and update or transfer ownership to others in a secure manner. This is due to key pieces of information embodied in each transaction:
 - Its own ID to ensure that the transaction is uniquely identified;
 - Information on the sending and receiving parties;
 - Information on the asset transferred, lastly it holds;
 - An authentication key for the sending party.