

Flex Token (FLX)

A Crypto Token developed for use in Bittunes and subsequently in related services as a Federated Coin (Bearer Instrument).

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THE FLEX TOKEN in BITTUNES

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Abstract

The Music Industry is not working for most Artists and is completely out of date in terms of its lack of adoption of optimal internet distribution technologies. The potential of user-powered P2P networks to connect users with Artists has been ignored in favour of centrally controlled streaming music services like Spotify. New decentralised payments technologies like Bitcoin have yet to be integrated on a large scale with a user oriented decentralised music service. ~ We present the design and implementation of the second generation of the existing Bittunes Application, which has already defined a completely new user-centred microearning system designed to empower consumers as the new distribution channel for independent music, outside the restrictive structures of the Music industry. In this white paper Bittunes presents a proposal for a global independent music marketplace, and the launch of the Flex token, that has been conceived and planned in cooperation with Bittunes Artists over several years.

1 Introduction

One of the biggest misconceptions about the music industry is that the current industry represents anything like the true state of music in the world. A recent investigation by The Economist stated that: "Today, three major Record labels own well over half of the Western World's Music". This statement is clearly false, as it is referring only to the relatively small percentage of music owned by Record Labels. There is an enormous amount of music from all over the world that has no unified global platform. Current rights systems actually exclude some the biggest markets in the world, i.e. China, India, etc, while almost all new Blockchain/Music ventures rather than dealing with this broad problem, are catering directly to the main stream music industry and/or rights collection agencies in various ways. A recent article in Hypebot "Why You Can't Put The Music Industry On A Blockchain" *, illustrates the problem very well, and is in accord with Bittunes strategy to completely avoid the Music Industry, i.e. to fix music's problems a clean slate approach is needed.

Bittunes has a unique point of difference, compared to other blockchain/music startups

Bittunes has taken an inherently different approach, offering a new economic model for trading music outside the existing structures of the Music Industry. Since coming out of Beta in May 2015, Bittunes has bound together Artists and Fans from more than 100 countries into one integrated marketplace using the Bitcoin 'microearnigs' system, where buyers go on earning after their music purchases, in partnership with the Artists they follow.

* <http://www.hypebot.com/hypebot/2017/08/why-you-cant-put-the-music-industry-on-a-blockchain-excerpt.html>

The legal foundation of the system lies in a clear understanding that the Artist is the Primary Publisher, and as such can authorise any new global distribution method, underpinned by the ‘*Creative Commons Plus*’ rights protocol. This system effectively allows Artists to self-publish globally, independent from outdated music industry and legacy financial systems, and also allows consumers to easily find a diverse range of independent music, and to earn Bitcoin by co-distributing this music.

Simple rights, instant remittances, micro earnings for fans, plus authentic music discovery

This system is as revolutionary as it is extremely simple, because it offers a clean slate approach for the future of music distribution in contrast to the tangled industry centric legacy model. However, overturning entrenched legacy systems can be extremely difficult and requires a disciplined ‘disruptive strategy’. Bittunes has followed such a strategy since day #1. We believe that to scale Bittunes for millions of simultaneous users and to extend the proprietary microearnings process to enable it’s broad adoption as a new content monetisation standard, it is highly advantageous to tokenise Bittunes core processes with a new bearer instrument that will function as an enabling key. This token is called ‘Flex’, designed as a flexible asset to streamline otherwise complex processes and effectively bridge between blockchains and enable multiple related functions both in rights certification and content trading.

Proof of Traction

In this document we introduce the concept of ‘*Proof of Traction*’ (P.o.T.) which is the next generation selection methodology for recipients of the Bittunes microearnings process. P.o.T. allows Artist’s to customise the criteria for the selection of users for rewards based on a multitude of variables, on a per song basis. This innovation extends the existing financial incentives mechanism operating in the current version of Bittunes, augmenting it with an intricate CRM type vehicle for Artists.

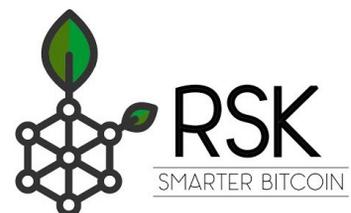
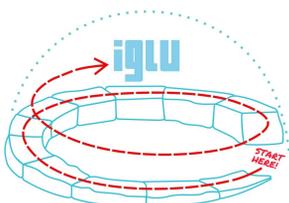
Both Bitcoin and Flex are earned as part of the P.o.T. system. It is intended that the Flex token will also be able to be used across numerous compatible external systems that can apply the same microearning mechanisms in grass-roots ‘*bottom up*’ (user generated content) systems and communities, so as to effectively become a federated utility token.

Microearnings and P.o.T. Incubator in Thailand in July 2018

To drive this process, Bittunes, in conjunction with partner company IGLU Ltd. will sponsor a special incubator in July 2018 to encourage other companies and startups to adopt and utilise a microearnings model with P.o.T. type CRM system as the basis for grass roots user centred rewards selection in qualifying applications.

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1.0 The problem



78% of industry revenue is non-artist revenue ¹

At the same time Independent Artists are getting squeezed by services like Spotify which make it impossible for most Artists to make a living from their music. While the priorities of music corporations are centered on maintaining huge profits, this situation will never change.



The Music Industry represents <1% of Music

The Music Industry represents a thin slice of the music being made around the world, Spotify playlists are effectively paid for by the Record Companies, its 21st Century payola. This lack of diversity and choice is a huge limitation for both consumers and Artists.

1.1 The Industry context

The music industry does not help the majority of Artists. According to Digital Music News, 91% of independent artists are totally undiscovered.² The Music Industry has been reacting to the ‘Piracy’ threat posed by P2P file sharing applications for the best part of two decades. This led directly to the Record industry’s interest and investment in services like Spotify, to give consumers the free music that they wanted, supported by Advertising. However this trend has been at the expense of most Artists with record contracts, and has helped marginalise independent non contracted Artists even further.

1.2 Historic context (alternative pathways)

Limewire was one of many P2P file sharing applications that sprang up in the early 2000’s. With approximately 300M users globally it was a technical and sociological phenomenon in that it was largely a people powered resource. Ultimately it was shut down in 2010, because of copyright violations. A very interesting paper from MIT in 2005 forecast a possible scenario where a monetised and legal version of such a network might arise. This scenario is probably the closest idea to Bittunes, and was actually one of the early inspirations for the Bittunes team.



- 50M users per month
- Available in 32 Languages
- Sued by 13 Record Labels for \$7.5 Trillion
- Limewire.com closed (seized) in 2010

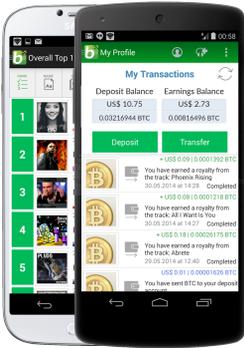


“...it is likely that file sharing will continue, in one form or another. While much of this will comprise illegal activity, there is third trajectory for innovation (besides legal and illegal downloading), which is pushing for alternative licensing and compensation systems – a new legal environment suited to digital distribution – that could leverage the deeply established and growing practice of file sharing rather than stifle it.”

‘Digital Music Distribution’ - A paper prepared by Natalie Klym MIT Communications Futures Program (CFP) December 2005 ³

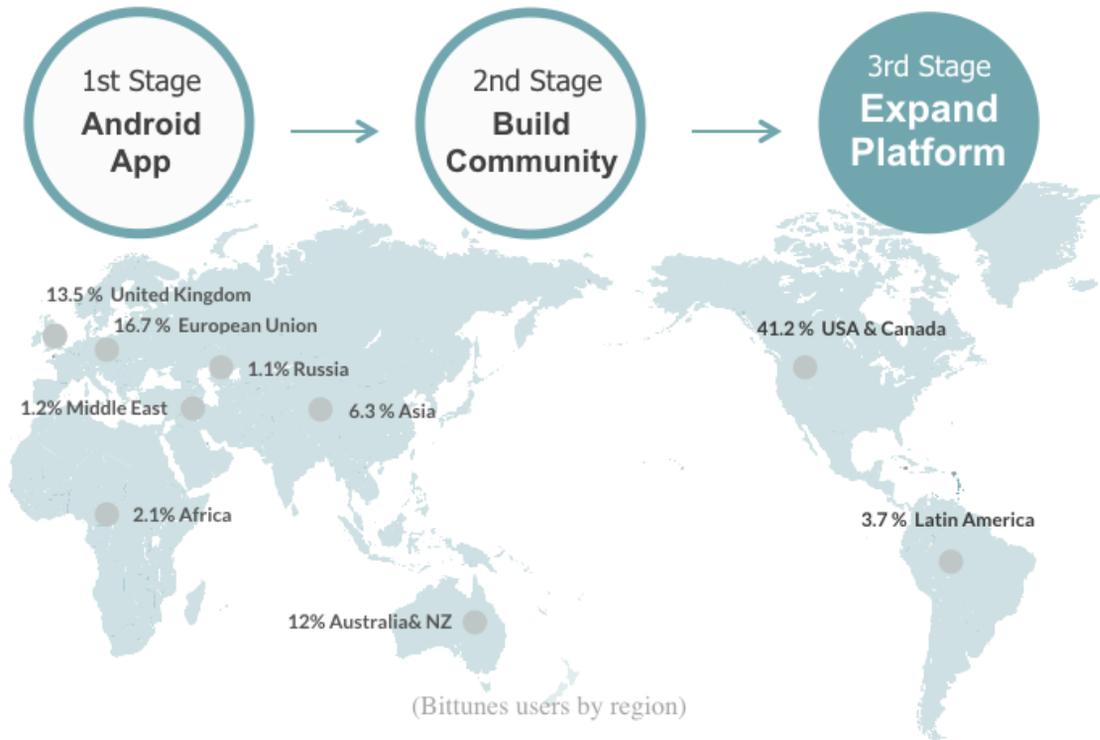
1. <https://musicindustryblog.wordpress.com/2014/09/29/digital-ascendancy-the-future-music-forum-keynote/>
2. Digital Music News article, 91% of Artists are completely undiscovered’ <http://tinyurl.com/j78gqng>
3. Value Chain Dynamics in the Communications Industry - <http://cfp.mit.edu/docs/core-edge-dec2005.pdf>

1.3 What is Bittunes? (some background about the mission)



- Bittunes has already established itself as a leader in the field of new music business models. 4
- Bittunes has been cited by Deloitte Consulting as a leading startup using blockchain to help independent artists flourish. 5

Bittunes started as an Android app on Google Play, and after several years of operation now has users in more than 100 Countries and contributing Artists from more than 60 Countries.



Bittunes 2.0

The strategic plan for Bittunes was always to use the Android app as an MVP (minimum viable product), to build an engaged community and to then learn from that process. Then based on those learnings, develop a new cross platform version, now referred to as Bittunes 2.0. The primary aim of Bittunes 2.0 is to open the platform up to enable much wider adoption and to scale Bittunes to accommodate millions of users.

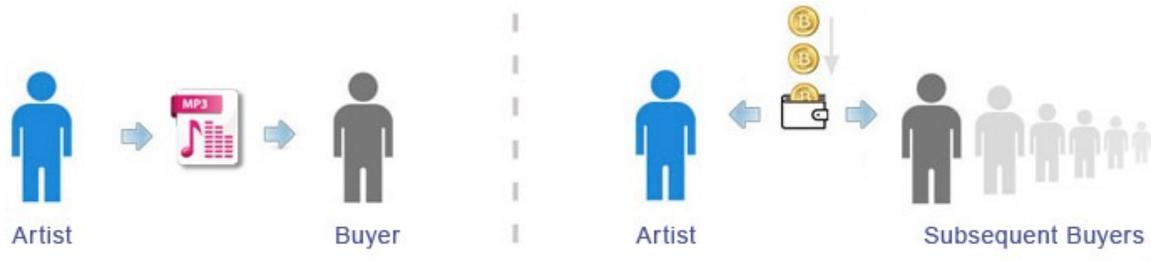


<http://demo.bittunes.com/>

4 Bittunes is listed 1st on a list of 10 blockchain startups to watch '10 blockchain startups the music industry should be watching' (section 2, page 11 of the Blockchain Report, <http://musically.com/wp-content/uploads/2016/05/blockchain-report.pdf>)
 5. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Innovation/deloitte-uk-blockchain-full-report.pdf>

1.4 The primary feature of Bittunes

The primary feature of Bittunes is that buyers continue earning from their music purchases after they make them. In effect this system is designed to disintermediate the highly layered commercial hierarchy in the music business, in favour of the more fundamental partnership between buyer and seller.

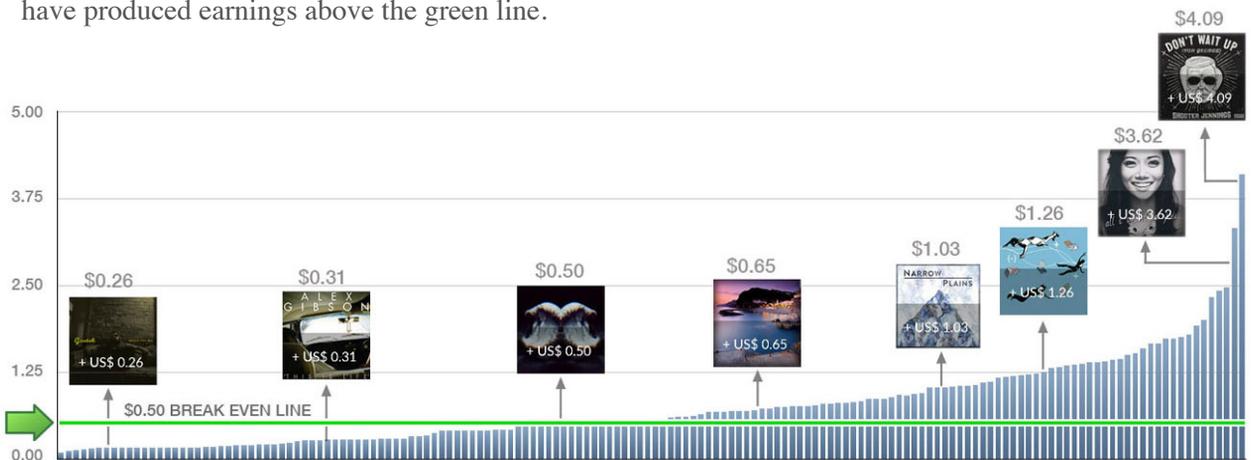


This apparently simple idea has broad implications. It creates a totally new system of economic incentives for music sharing. It is based on the idea that music fans are the optimal distribution channel for Artists, and so it is and obvious and beneficial for the Artist to share revenue with them.

1.5 Making a profit on a music purchase

Naturally, this also means that a music purchase is no longer a sunk-cost, it goes on earning for the music buyer over time. In this way, it is quite possible to make a profit on song purchases as more and more people buy the purchased song. This system has been operational in Bittunes for several years.

The graph below depicts the earnings of a single Bittunes music buyer as at March 14th 2017. The graph shows the break even point of \$0.50, being the price paid for each of these songs. This demonstrates how this Bittunes user has covered their costs and indeed made a profit on all songs that have produced earnings above the green line.



The graph shows 156 tracks (purchased for \$0.50) that have produced earnings, giving an overall earnings total for this user of US\$121.62 or 0.09752982 BTC, meaning that this user has paid back their investment in these tracks and is in front by \$43.62 (this graph reflects sales when Bittunes had less than 1000 overall users and fairly low trading volumes)

1.6 Earnings float with the Bitcoin price

The next crucial attribute of Bittunes is that earnings by Artists and buyers float with the price of Bitcoin, which typically means that they float higher over time. This factor adds to the primary earning feature in a way that dramatically compounds the revenue earned by Artists and buyers.

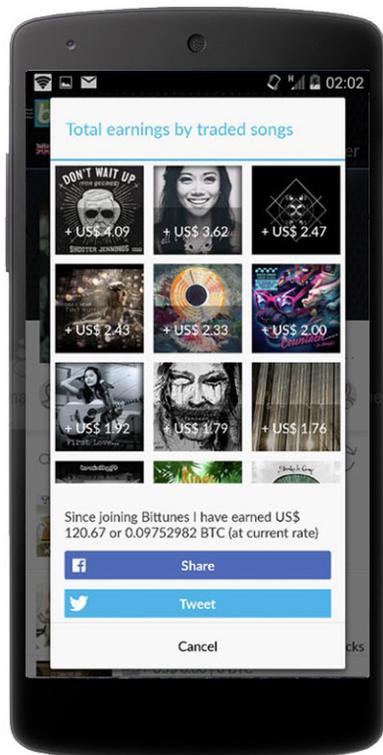
Earnings float with the Bitcoin price (continued)

The screen shots below, taken in March, August and October of 2017 demonstrate the effect of the rising Bitcoin price on the afore mentioned user's earnings (shown in the graph on the previous page). Note that the total earnings have more than tripled between March and October. In fact the top earning song, 'Don't Wait Up' by Shooter Jennings, at \$14.13, by October 1st had provided a roughly 24x return on the \$0.50 purchase price of the song.

Earnings total on March 14th 2017

US\$120.67

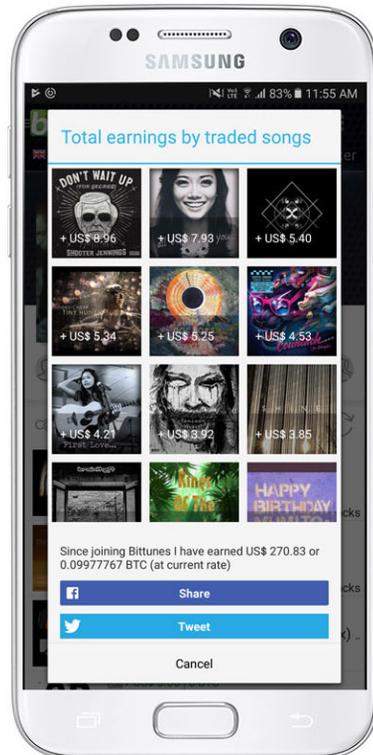
When Bitcoin price was \$1,000



Earnings total on August 3rd 2017

US\$270.83

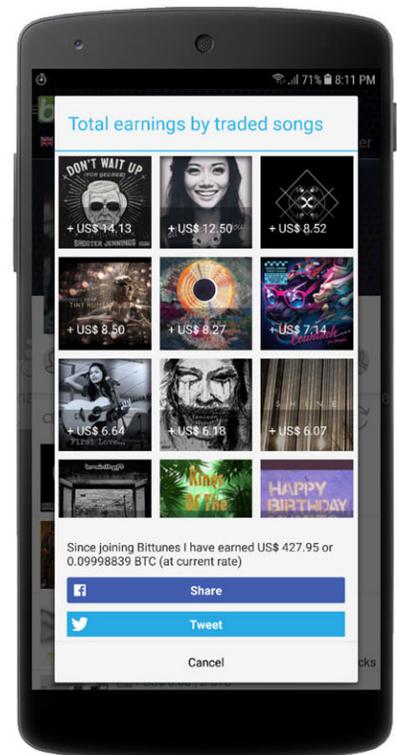
When Bitcoin price was US\$2,717



Earnings total on Oct. 1st 2017

US\$427.95

When Bitcoin price was US\$4,233



In a very real way song earnings in the Bittunes system rise like crypto assets. This is because they are effectively tied to the Bitcoin price. While this is an obvious point when the technical linkage is understood, but for the average consumer and even for the Artist, it presents a significant difference compared to traditional systems.

1.7 Preserving Bitcoin as the primary currency

So, the two core aspects of Bittunes, a) the microearnings system and b) the way that accrued earnings float higher with the rising Bitcoin price, create a compelling value proposition for users. This is one of the main reasons we have not wanted to abandon Bitcoin as our primary currency and replace it with our own alt-coin.

NOTE: The Flex token is not a replacement for Bitcoin in the system, it is a parallel crypto asset that has been designed to augment the Bitcoin earning system and other core processes in Bittunes 2.0.

2.0 Foundational ideas behind Bittunes 2.0

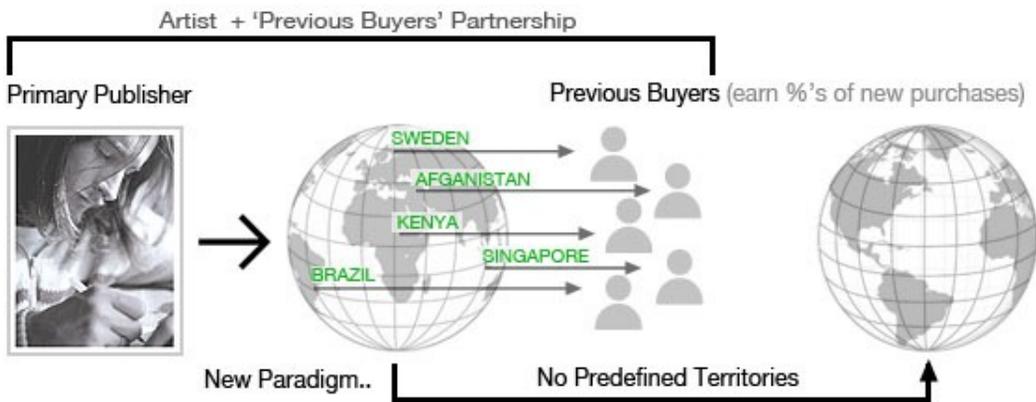
The Bittunes system pivots on a few core ideas. One of the most important is a recognition of the status of the artist as the ‘Primary Publisher’ of their works. The significance of this is that, being the Primary Publisher, they can authorise any kind of new distribution model that they choose. So, using Bittunes, they can self-publish globally, ignoring predefined music industry territories.

“Legally, when an Artist writes a song, two rights are created; the right to the recording (a.k.a. the master) and the right to the underlying song itself (a.k.a. the publishing) [6]. Until an Artist signs away these rights to a Publishing House or Record Company, they are the publisher.”

‘Bittunes is the Future for Creators’ - Jon Matonis [7]

As long as the Artist as ‘primary publisher’ gives permission for their work to be traded, and there is a reliable system of rights ownership, (Bittunes 2.0 will use a Creative Commons license in a dedicated sidechain) plus a business logic framework that the Artist can depend on for payments, then this provides the basis for a revolutionary type of independent global music marketplace, outside the main stream music industry. As long as these conditions are met, then:

- So called ‘piracy’ becomes a non issue.
- Earnings from sales are delivered instantly, to all stakeholders
- The whole world becomes one marketplace



2.1 Simple Rights Blockchain with Blockchain IDs in audio files

Bittunes will use a dedicated sidechain to record song ownership records, using the Creative Commons licensing system. The platform will reference this Blockchain ID in all audio files in the system so that the ownership information is completely accessible and can be verified easily, both within Bittunes, and externally. This means that Blockchain registration will not be remote and hidden, but in constant use by Bittunes to help provide integrity across the system.

These and other novel systems (covered more fully later in this document) are all made possible by the ‘clean slate approach’ that the Bittunes project has taken. In other words, if Bittunes was working with the music industry in any way, these innovations would not be possible.

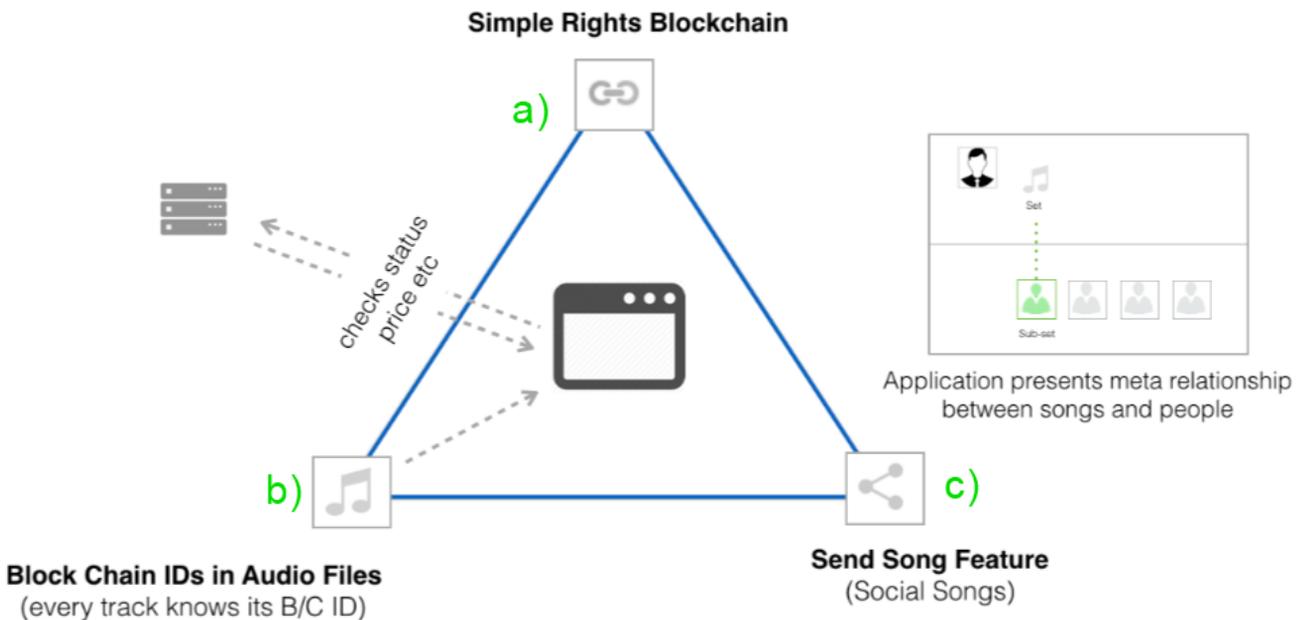
[6] ‘Licensing for Cover Songs’ <https://loudr.fm/faq>

[7] <https://medium.com/@jonmatonis/bittunes-is-the-future-for-creators-1b210241aad6>

2.2 The core elements underpinning Bittunes

Aside from the technology that supports the Flex token and related systems, there is a core foundation of systems that will drive the differentiation of Bittunes in the marketplace and provide significant utility to Artists.

Firstly when an Artist or Independent Label uploads their track/s to Bittunes, the files will be automatically checked to see if they contain any identifying information from other external services (MusicBrainz / AcoustID [8]). Various controls are put in place at this stage to prevent fraudulent uploads of other people's music. A digital fingerprint of the file is created and metadata stored in preparation for Blockchain registration.



The diagram above indicates how these core elements will work together in Bittunes 2.0.

a) Simple Rights Blockchain

A universal unique identifier for each audio file is embedded in a dedicated sidechain to the Bitcoin Blockchain, and also in the Google Cloud and in AcoustID. This process will maintain an immutable record of song ownership, with the other services, (Google Cloud and AcoustID) indexing that Blockchain record while providing an independent 'look up' register.

b) Blockchain IDs in audio files

Bittunes will reference this Blockchain ID in all audio files in the system so that the ownership information is completely accessible and can be verified easily, both within Bittunes, and externally, so that Blockchain registration is not remote and hidden, but in constant use by Bittunes to help provide integrity across the system.

c) 'Social Songs' Feature

The Social Songs feature presents the meta relationship between songs and people. There will be many ways for Artists to share songs in Bittunes 2.0. They can allow fans to pull the song by sending a text message at a live gig, or send songs directly to stored lists. Once an authorised song has been received it can be shared freely, from user-to user-to user, without any so called 'piracy' issues. More detail about this feature available later in this document in

[8] 'AcoustID. an open source audio identification service' <https://acoustid.org/>

3.0 Flex Token ~ (The Flexible Token)

Although Bittunes has been a Bitcoin only platform, with the benefits previously explained, this has placed constraints on user adoption. i.e. many consumers are still not familiar with using Bitcoin, and of the small percentage of the wider market that are familiar with crypto currencies, many are using other coins like Ether, etc. This is one of the reasons that an ‘in-app’ token like Flex has been conceived, to facilitate processes within the Bittunes platform and at the same time, maintaining Bitcoin as the core earning currency for users.

3.1 The need to drive adoption, and the role of Flex

The Flex token was conceived after a lot of careful thought and consideration (see) [‘Why we changed our opinion about crypto tokens’](#)⁹. We had been approached to create a Bittunes token as early as 2014 but were not satisfied that it was the right pathway. However, over time various things changed, which are documented in the article linked above.



What is clear now is that there are a number of functions that a dedicated token could facilitate that would add significant utility to Bittunes. Further, Bittunes is in a good position to be much more compliant with regulatory authorities than many other token projects undertaking ICO’s. This is because we already have a system where users generate points and forms of rewards, by their

activity in the app, which is one of the criteria that has been used to identify a ‘utility token’ as opposed to a token that is more closely associated with being a security in the eyes of the SEC and other regulatory bodies.⁹

3.2 Flex Token Functions

The primary concept behind Flex is that, within the Bittunes application, a Flex token takes the form of a ‘smart token’ that contains meta information encrypted within its structure as a wrapper, to enable various functions. These can be targeted at relatively standard and/or low security objectives, or function as an HD wallet¹¹, to enable ‘name-spacing’ and multiparty exchanges. Functionally, usage can be divided into two categories:

- **Payment attributes**
- **Earning attributes**

3.3 Payment Attributes

For the user, the initial function of Flex is as a bridge between conventional payment systems like Stripe (<https://stripe.com/>) and crypto currencies like Ether and Bitcoin. This is important because while Bitcoin has been the only currency in operation in the original version of Bittunes, to reach a much broader market and to better enable subscription revenue in Bittunes 2.0, a variety of payment methods will be required.

[9] <https://medium.com/@simonedhouse/why-we-changed-our-opinion-about-crypto-tokens-fd1646f176e6>

[10] ‘A Securities Law Framework for Blockchain tokens’ <https://www.coinbase.com/legal/securities-law-framework.pdf>

[11] ‘Hierarchical Deterministic Wallets’ https://en.bitcoin.it/wiki/Deterministic_wallet

Flex will serve the function of binding these payment options together in one encrypted utility vehicle in Bittunes 2.0. Payment data will be mapped onto Flex Tokens to govern payments logic inside the application. (below) With such payment data only readable in the application and not flowing onto the web when Flex is traded.



While this process could be executed in a traditional server and database, encrypting payments information and verifying these in a dedicated sidechain is more secure and a better all round solution.

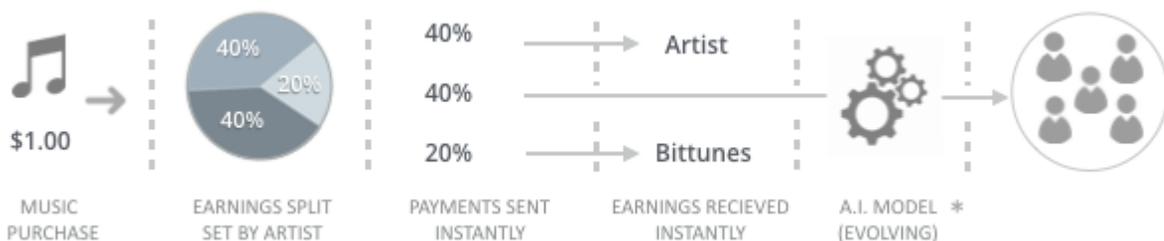
3.4 Distribution of accrued Bitcoin earnings in Bittunes 2.0

Just as Bittunes 2.0 will enable unrestricted sharing of free music files as part of the Social Songs feature, (see 5.0) the Flex token can facilitate simple sending of various sorts of value off-chain. It is even possible to embed a HD wallet inside an audio file. These kind of implementations have been largely unexplored, but can be a rich area to leverage in relation to Flex usage inside Bittunes 2.0.

In the planned configuration there are various levels of security and functionality applied, dependent on whether the token is being used in the relatively more secure environment of the application, or whether value is being transported external from the Bittunes app. For payments outside the application Flex essentially functions like a wrapper that utilises a specific HD specification 12, to encrypt and embed HD wallets so payments can be transported externally. This process can be used to generate addresses and encrypted wallets in a way that only the intended recipient can claim / decrypt. Payments can be sent off-chain to an email address or mobile number, i.e. any online service with a way to identify each unique user.

3.5 Earning Attributes

One of the central processes in Bittunes is the micro earnings system, where users earn percentages of a sale price in partnership with the Artist who created the song that they purchased. The selection of which users receive these micro earnings has so far been determined by an algorithm in the initial version of Bittunes, although this model adopts many AI features as it will be applied in Bittunes 2.0



So, what we refer to as ‘micro earnings’ in Bittunes is not about earning Flex, it describes the division and distribution of Bitcoin amongst users based on gamifying loyalty in the system, as determined partly via the points table. However Flex can now be earned in the Bittunes system because as of September 2017 one point in Bittunes correlates to one Flex Token.

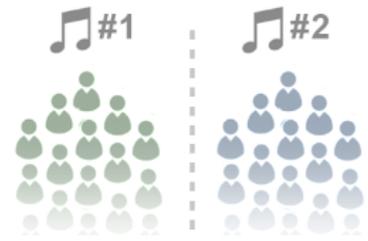
To maintain control of Flex’s value, when the Flex token is tradable on an external exchange, Bittunes will calibrate the rate that users can earn Flex inside the app in correlation to the floating external value of Flex.

12 ‘Multi-Account Hierarchy for Deterministic Wallets’ <https://github.com/bitcoin/bips/blob/master/bip-0044.mediawiki>

3.6 The Bittunes Earning model (and how it relates to Flex)

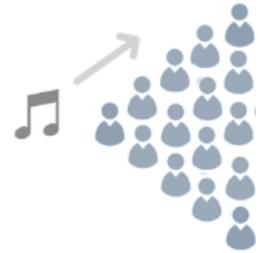
Condition #1 ~ Distribution in ‘previous buyers’ group

The first logical condition that we applied to earnings distribution was that earnings would be distributed not based on amount of songs shared, but based on a per song metric, in other words based on rewarding users from inside the group of previous buyers of a given track. As in the diagram opposite.



Condition #2 ~ Non even distribution (preference bias)

The challenge with earnings distribution was that if rewards to new buyers were distributed evenly as more buyers arrived, this would mean that no user would ever be able to earn more than the purchase price of the song. So therefore to create a system where a user or users could make a profit on a song purchase we would need to introduce a bias or preference in the selection of which users are chosen for rewards.



The Bittunes Android app solves this problem with an algorithm that skews the selection of a small group of previous buyers (different every time) to be rewarded with each successive song purchase, based on a determination of ‘merit’, as defined by the application. (concise definition to follow)

Condition #3 ~ Reward group restricted to 5 users

When the application looks to find a selection of previous buyers to reward, the selected group is limited to 5 previous buyers. (this could be increased in Bittunes 2.0, but was originally intended to guarantee that each microearning was not too small, i.e. average between 5 and 8c.)

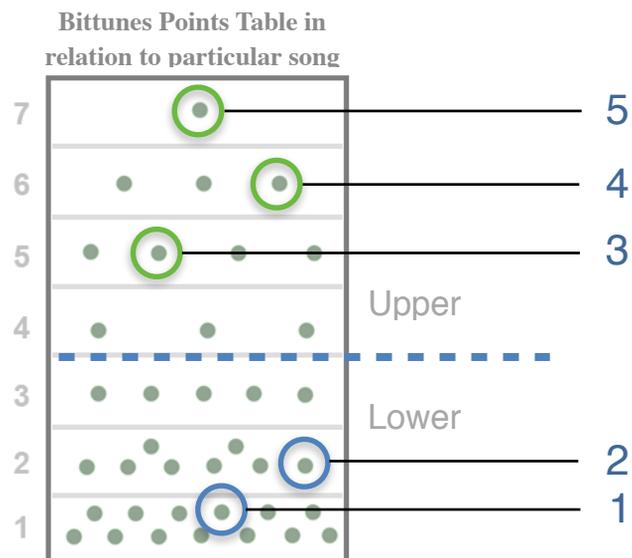
Condition #4 ~ Selection of group is based on Points table position

Selection of the group of 5 previous buyers is chosen initially based on their position on the Bittunes points table.

All Bittunes users can earn points based on ‘merit’, or what we refer to as ‘good citizen behaviour’, i.e. rating songs, visiting the app often, etc. So users rise up the points table and move up through various levels based on these types of activities in the app.

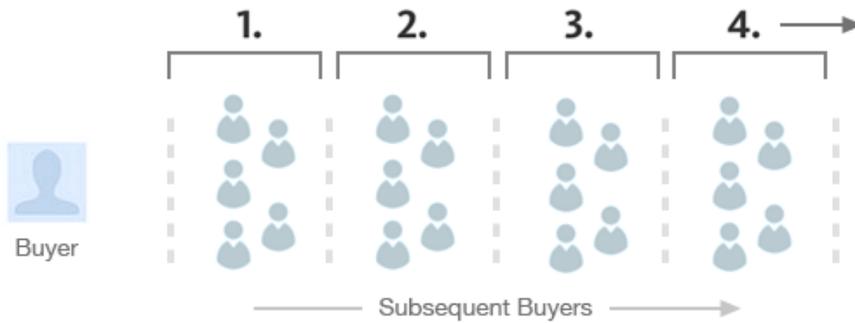
When the application needs to allocate a reward, it looks at all previous buyers of a song, then looks at this group’s rankings on the points table.

Then the algorithm chooses three of the five previous buyers from the upper levels of the points table, and two of the five from the lower levels. (This is intended to create a degree of fairness so that even new users receive some rewards and so are encouraged to continue to be engaged in the platform).



3.6 The Bittunes Earning model (continued)

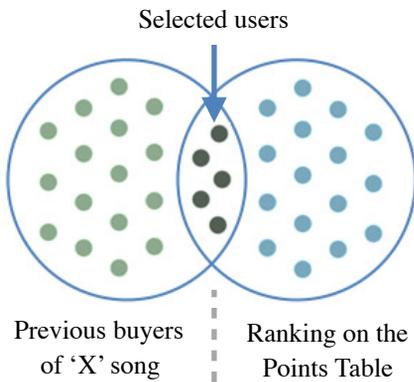
So, in the Bittunes App (Bittunes 1.0), if a user purchases a song and they remain engaged with the application, they will earn micropayments in Bitcoin when subsequent purchases occur. This system effectively hard codes a driver for user loyalty, into the business model (the goal of all internet apps).



Significantly, it also segments users into meaningful groups, which again would be a highly sought after feature. This aspect is under utilised in the first version of Bittunes, but becomes a very detailed and valuable feature in Bittunes 2.0.

4.0 Proof of Traction

In the first version of Bittunes, selection was based on a simple merit algorithm as determined in the application. The venn diagram below illustrates this in the overlap between previous buyers of a song and a small group of users selected to receive microearnings after having purchased a particular song.

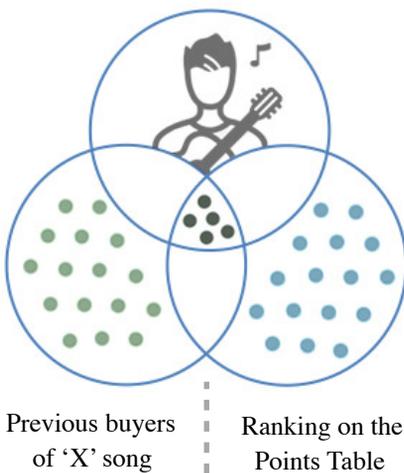


Bittunes 1.0

This is the relatively simple model that is operational in the first version of Bittunes. It has been an effective way of demonstrating a microearnings process developed around the gamification of loyalty. However, it does not leverage fully this new level of proximity between Artist and music fan. In this model, both Artists and buyers are earning together, but the segmentation of interested users is not being utilised by the Artist.

Bittunes 2.0

In Bittunes 2.0 we allow the Artist to input multiple variables into the equation of how a set of users are selected to receive Bitcoin microearnings. These variables could include other indications of merit as determined by that Artist, like geographic location (i.e. where that Artist is touring next), or whether these fans have posted recently about the Artist on social media etc. Almost any variable is possible to be included if it can be measured.



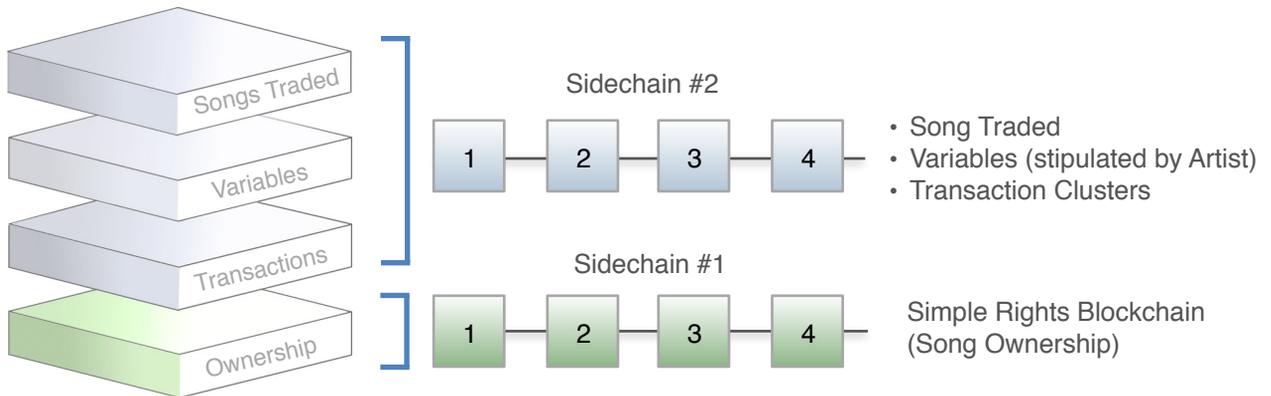
So, by segmenting fans into earning clusters, the Artist has more than a financial relationship with these fans. The process will have all the aspects of a precise CRM type service for the Artist.

Proof of Traction (continued)

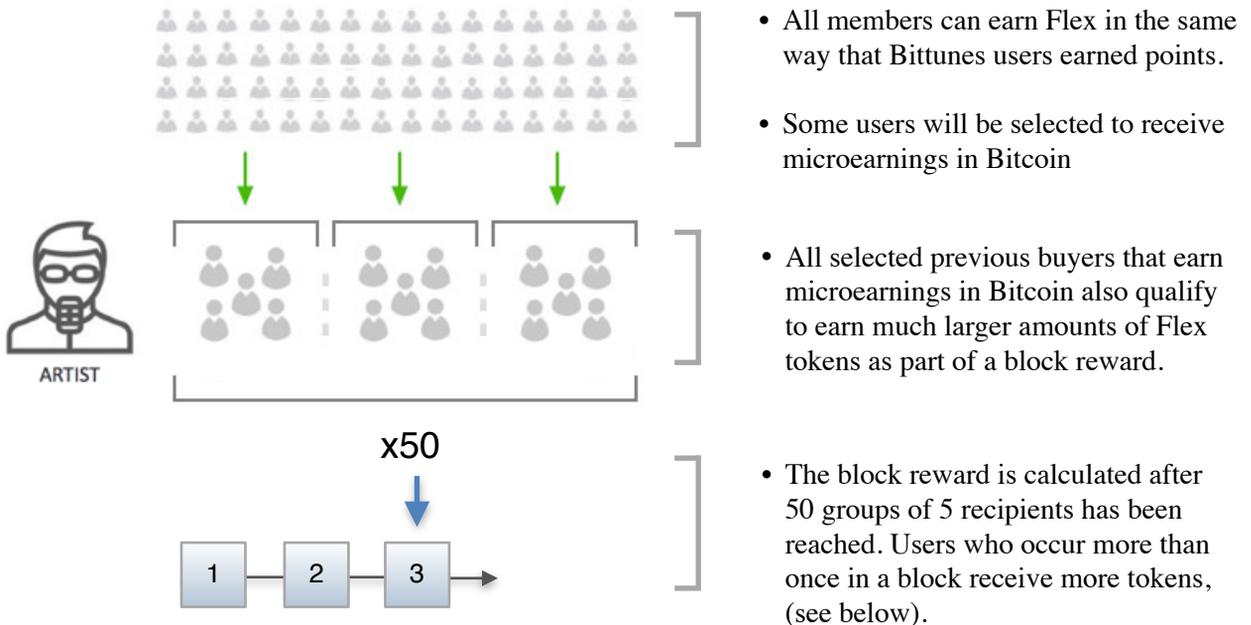
The 'Proof of Traction' (P.o.T.) system in Bittunes 2.0 involves four aspects that will be recorded in two separate sidechains. The first functions as a simple rights ledger to record song ownership. This system embeds Creative Commons licensed rights records into the sidechain.



The second records a set of three vertices grouped into a different sidechain. This second sidechain collectively records a) the particular song in question, b) the variables stipulated by the Artist in relation to this song that determine how the cluster of recipients of microearnings were chosen, and c) details of which users are in each cluster.



The reward system in 'Proof of Traction' differs from the simpler system used in Bittunes 1.0 in that it no longer gives a percentage of microearnings to users from the lower levels of the points table. That system was intended to help stimulate awareness of the microearnings process. By the time the 'Proof of Traction' system is in place in Bittunes 2.0 there should be a clear understanding of the drivers for rewards, and to give the new system clarity, 'merit' as determined by Artists should be the only competitive driver.



When a block is created, 10,000 Flex tokens will be distributed to the users who made up the 50 groups of 5 users*. If there is no repetition of users there will be 250 users in a block. If one or more users are in more than one group of five, they will receive proportionately more Flex tokens. When Flex tokens are spent in Bittunes in relation to song uploads and other processes, they will be burned.

* The exact ratios are subject to change as the project moves forward.

5.0 Social Songs

We have worked closely with many of our users to understand their needs and learn from their problems and frustrations. As a result we have modified many aspects of our initial plan, as we became aware of important new potential directions for the Bittunes platform.



One of our Artists, Anthony from Pludo, complained that he was spending more than \$1000 per year on Facebook, sending bulk messages to his own followers. He told us that he would happily pay \$100 subscription fee per year if we could provide a way for him to build a fan database and contact them freely. Gradually we started to see the synergy between the grouping of previous buyers of tracks for micro-earnings distribution and the grouping of fans for the Artist's need for a general CRM type solution, (in addition to a P.O.T. system).



As mentioned in the introduction Bittunes is actually a 'self-publication' platform, based on the legal status of Artists as 'Primary Publishers'. This fact has allowed Bittunes to develop the basis for two complimentary systems that have profound implications. a) The existing micro earnings system that redefines the economic basis for music distribution, and b) the planned 'Social Songs' feature in Bittunes 2.0.

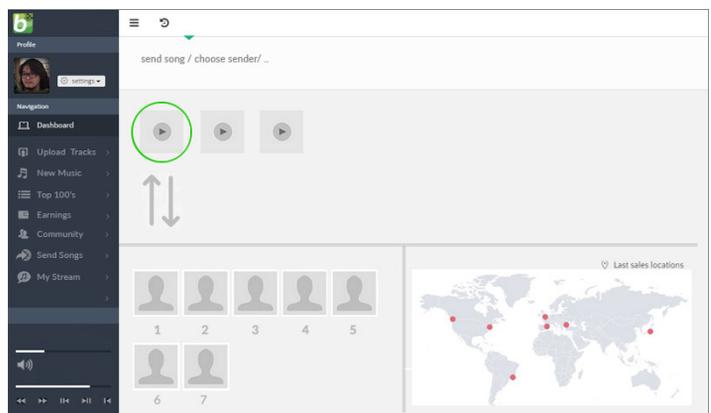
5.1 Social Songs features

The Social Songs feature leverages one of the foundational aspects of Bittunes 2.0, i.e that if an Artist authorises a song to be able to be shared for free, it can be shared from 'user-to-user-to-user' in a totally unrestricted manner. With every new share, Bittunes gains a new member, and the Artist gains a new fan in their database, sorted by geography, age, etc etc.



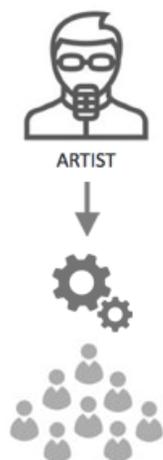
When tracks are displayed in the Bittunes 2.0 interface, they will have some unique properties. Music tracks will be able to index or reference people associated with those tracks. NOTE: This feature will be absolutely unique in the market place.

Songs will display a 'people history' relevant to each user. This can be applied in various ways. A song authorised by an Artist to be provided for free to users, could be sent to a list by the Artist, or could be 'pulled' by fans, (without the Artist knowing who they were beforehand). In these various circumstances, Bittunes 2.0 will offer unique new visibility of the social side of music sharing



5.2 ‘Social Songs’ and ‘Proof of Traction’ comparison

These two new systems in Bittunes 2.0 both have many characteristics of CRM (customer relationship management) systems in that they facilitate a deeper relationship between Artists and fans. However, they are also inherently different.



Proof of Traction

is a system that defines how users are selected for rewards based on conditions prescribed by the Artist.

The Artist can set the criteria for selection of recipients that is relevant to their interests, on a song, album or genre basis.

(Users earn Bitcoin & Flex Tokens)



Social Songs

is a system that displays the people history of a song file, as it relates to a particular user

By selecting the song in the Bittunes interface the user will see people who have been sent, or have received that song.



(Users send/receive songs for Free)

The important difference is that the P.o.T. system deals with financial rewards, and the Social Songs system allows Artists, Independent Labels and receiving users to send songs for free. (NOTE: Sending of songs by Artists or Labels would be a subscription enabled service, available to subscribers only.. receiving such a song and then sending to others will not require a subscription.)

Here are some use cases:

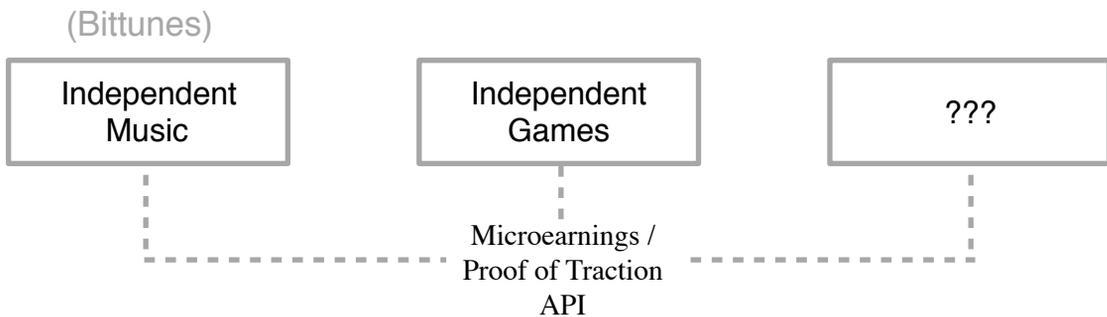
1. A label may send out 500 songs to music industry or music journalists as part of a promotion for a new Album release. Each recipient would receive an email with the link to download the song. After clicking the link, they would be presented with a ‘Accept with Facebook, Twitter or Google ID’, after completing this simple registration they receive the song and can then send the song to anyone without restriction. All recipients that download the song become part of the accessible social network for that Label (or Artist), and also become a new Bittunes member.
2. Fans at a concert can text the name of a song or band’s name, to a mobile number provided by the band on a screen above the stage, to receive this song. After the gig, the Artist can then return to the Bittunes App and view the fans that requested and received the song, and send them all a bulk message, or message individual fans. (fans can select contact permissions as part of privacy settings) The Artist can then also integrate Social Songs with P.o.T. selection criteria meaning that if selected fans purchase the Album, they can be prioritised for getting a reward in the P.o.T. system.
3. A busker on the street can offer members of the crowd an easy way to receive one of their songs, by simply texting the name to a number written on a piece of cardboard. This provides an easy solution to one of the biggest problems experienced by street performers, i.e. how to capture attention and contacts and possibly sales, in busy street situations.

Although both systems function in separate ways, they can be integrated by the Artist or Indie label very effectively by working inside their Bittunes Admin interface.

6.0 Extending the Microearnings and P.o.T. systems

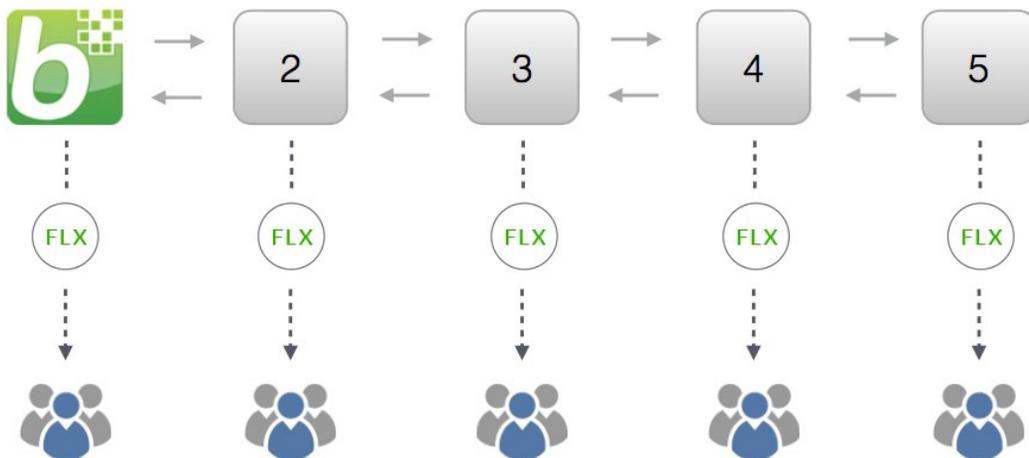
We believe that one of the best ways to stimulate the adoption and understanding of the Bittunes microearnings process is to encourage it's use as a new content monetisation standard, and an effective way to achieve this would be to encourage other applications to adopt the system. For this reason, we plan to develop a number of open API's that will provide access to the core processes of the Bittunes Microearnings and Proof of Traction systems.

These API's will be best suited to applications servicing communities that are broadly similar to Bittunes in that they would represent user generated content systems or products. A marketplace for independent games manufacturers would be a good example. It could function in a very similar way to Bittunes, and service a similar need as an alternative to mainstream corporate distribution.



7.0 Incubator in Thailand for five qualifying projects

To drive this process, Bittunes, in conjunction with partner company IGLU Ltd. will sponsor a special incubator in July 2018 to encourage other companies and startups to adopt and utilise a microearnings model with P.o.T. type CRM system as the basis for grass roots user-centred rewards selection using Flex.



The ultimate aim is not only to extend these Bittunes innovations but for the Flex token to be able to be used across numerous compatible external systems that can apply the same microearning and P.o.T mechanisms in grass-roots 'bottom up' (user generated content systems) and communities, so as to effectively allow Flex to become a federated utility token. This will have the net effect of driving the adoption of these fairer user-oriented processes, but to also progressively increase the value and usage of the Flex token.

8.0 The Bigo Live agreement

On the way to finding appropriate partners Bittunes has begun looking for Companies that we can work with to add value for our users. One such company is Bigo Live. (*Background: Bigo Live is a leading video streaming social application with 150m users*) After several months of discussions between Bigo and Bittunes, the two companies have entered into a content sharing agreement giving selected Bittunes artists the opportunity to perform a series of live concerts as part of the main Bigo Live Music Channel.

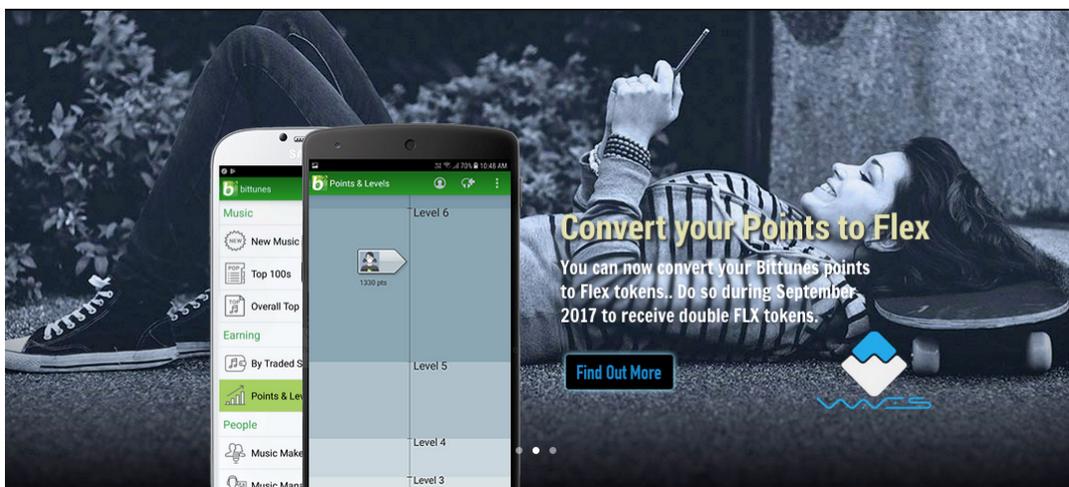


As an initial pilot program ten Bittunes Artists will be selected to perform live music events with Bittunes branding evident in such a way that there is cross promotion between the services. (The average viewership for Bigo Live music events is around 65,000 viewers per hour). Bigo Live will utilise Bittunes simple rights system which will be certified and authenticated as part of the registration process for participating artists by Bittunes. Bigo Live will pay Bittunes a nominal fee for recommending artists. Bigo Live will also be free to promote and develop relationships with these artists and each Artist may earn Bigo’s ‘Beans’ currency in the application.

9.0 Token deployment plan

Bittunes has already started issuing Flex tokens in direct exchange for Bittunes points, with some users taking advantage of the offer of x2 bonus during September 2017, promoted on the Bittunes website, see web form at: <http://bittunes.co.uk/points-form/>

There is a private presale in progress for Bittunes members, and many have been taking advantage of early deals, but these are subject to individual negotiation, until we announce the public Presale.



Final details for the pricing of Flex at the upcoming ICO and on the exchanges and other related details are still being worked out. (will be included in the next version)