Monetize your content. No ICO, no Premine.

BitTube

The purpose of this document

Explain **BitTube**.

Define the vision and future.

Introduce the team behind the project.

Show the USP and explain the customer benefits.

Explain the market and possible disruptions of market structures.

Explain the actual **BitTube** technology.

BitTube

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BitTube

Vision
Monetize your content

Fair use reward system for data content.

Make data independent from data storage companies.

Secure the worldwide right of free speech without censorship.

BitTube

Mission & Services

BitTube is a project which combines several services including broadcasting, social media and a blockchain.

Mission

BitTube is building a worldwide innovative platform, in which performance and reward for copyright are brought to a new level of fair use. In the future, this reward will no longer depend on your living area, advertising companies, data service providers or arbitrary decisions. With **BitTube**, the owner of the content or the owner of copyright will receive their payment from all over the world, based on how often their content is accessed.

With **BitTube**, the content owner has direct contact with the market and its users. It is only this market that decides who gets paid, for what data and how high the payment will be. Service data providers, portals or any other commercial entity no longer influence the income.

BitTube will replace existing data usage charging models (e.g. broadcasting or video) and introduce an ad-free billing system for the originator and the viewer.

BitTube will make data independent of local server farms, network operators and political influence.

BitTube will build a pattern recognition system that automatically assigns known copyrighted content to registered copyright owners, thereby preventing copyright infringement.

Services

- BitTube Coin.
- Cryptomining as a payment system.
- Video portal through the BitTube network based a IPFS Protocol.
- Broadcasting through P2P connections.
- Remote control through WebRTC and direct connections.

Management

BitTube Spain had the idea of building the BitTube system. The team, led by founder Saber Maram, built up the full strategic design as well as the modules and apps.

Saber Maram | CEO

The team of **BitTube** is led by MSc. Saber Maram. He has a history in IT management at OBI and is the founder of several tech companies that are led by the capable hands of the management teams that he builds up. Maram is always looking for business ideas and strategic inventions. The BitTube project is based on several thoughts about new future technologies and possible changing markets.

Kai-Uwe Schnier | CFO

25 years of experience in IT and co-founder of an internet provider in Germany. For the last 14 years he has been working on Tenerife, specializing in internet marketing and strategies, which he has utilized in the past three years while working together with Maram and Camacho on different projects in law office solutions.

Joni Kautto | CMO

A senior eCommerce consultant from Finland, Joni Kautto has been working in online marketing for 20 years. Kautto works mainly with Scandinavian companies, building and growing their eCommerce businesses from the ground up. He is specialized in search engine optimization and marketing and advertising solutions.

BitTube

Team

The international development, testing and support team behind the **BitTube** project.

Miriam Díaz
Frontend

Tino Mesa
Frontend

Iván Cabaleiro
Frontend

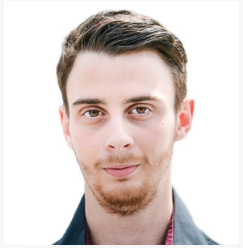
Carlos Santos
Frontend

Jacobo González
Frontend

Fritjof Harms
Backend

Sebastian Skomudek
Backend

Guille Rodríguez
Backend



David Haintz
Backend

Markus Behm
Backend

Jorge M. Silva
Admin | Security

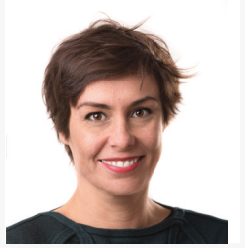
Aria Akhavan R.
Admin | Security

Christine Helmrich
Office | Support

Corina Jinga
Office | Support

Kathleen Forgber
Office | Support

Pari Gilani
Office | Support



Vanessa Figueroa
Graphic

Georgie Abrashev
Marketing

BitTube

Advisors

To achieve the goals of the business plan and get the needed competencies **BitTube** works with external advisors who have long year experience in finance, business development and technical issues.

Brent Clarke,
Blockchain Blitz

Founder and CEO of Blockchain Blitz, LLC - a cryptocurrency advisory and analytics firm. Brent is a seasoned entrepreneur experienced in management consulting with Fortune 500 companies, equities and cryptocurrency investing. A cryptocurrency and transparency advocate, his expertise includes fundamental & technical analysis, coin metrics & market strategy, social media, investing, portfolio management, deal structuring and negotiations.

Valentin Moritz Küpper,
Droptop GmbH

Founder and CEO of the ISP Linevast. He is an acknowledged IT expert and responsible for the strategic direction of his company. Valentin and his team delivers the worldwide hosting- and server-technology. They provide a self-developed defence software in combination with the highest quality hardware applications to keep the BitTube project always up and running.

Heikki Kauppinen,
DD-Ready Ltd

Co-Founder of DD-READY, is an entrepreneurial lawyer with degrees from civil and common law jurisdictions specialized in technology law, intellectual property rights and M&A. Heikki has a background in various VP and management positions in listed software and technology companies and EU position experience. Heikki has invested in 6 successful startups.

BitTube

History

Founder **MSc. Saber Maram** developed the vision of a worldwide system with fair use rewards not dedicated to company policy and censorship while he was working on several solutions for on screen sharing and broadcasting with high security needs for specialized customer groups.

January 17

Idea of Web Desktop Sharing P2P.

February 17

First Alpha.

March 17

Adding Features: Chat, Audio, Multi-connection.

April 17

Start Beta and bug fixing.

May 17

Implementing P2P Broadcast simple version just with 1 desktop.

Juny-July 17

First clients using it in Real Life.

Press release and TLP.

Presentation to gamers.

August-Dec. 17

Extend features Broadcast.

Building Media Platform.

Implementing cryptocoin BitTube.

August-Dec. 17

Developing Media Miner.

Running first tests.

Creating company for BitTube.

January 18

Bug fixing.

Preparing for launch.

February 18

Launch coin IPBC

Launch 1. release platform

First listed at first exchange livecoin.net

March 18

Listed at crex24.org and tradeogre.com

April 18

Beta phase, bug fixing

preparing rebrand and plaform update

Listed at altex.exchange

May 18

Rebrand platform to BitTube

Rebrand coin to: BitTube (TUBE)

May 18

Big technical platform update

Language selection

Abuse reporting

Live Broadcasting on

May 18

Windows / Mac / Linux

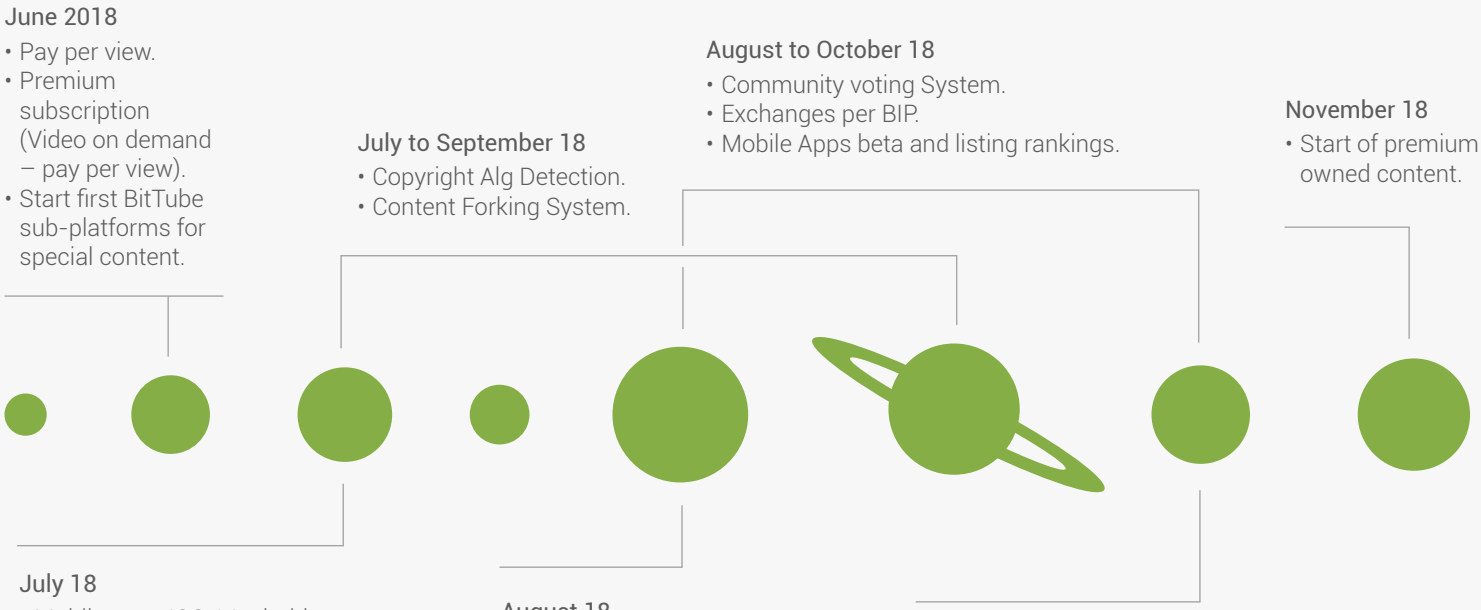
Social Messenger

Chat system

BitTube

Roadmap

BitTube makes complex server architectures redundant. All data is stored in the worldwide IPFS network, which places control with the users, not the data companies.



June 2018
- Pay per view.
- Premium subscription (Video on demand – pay per view).
- Start first BitTube sub-platforms for special content.

July 18
- Mobile apps IOS / Android Alpha.
- Airtime Update with new algorythmus working on mobild devices and Smart TV.
- Payment to publishers and viewers.

July to September 18
- Copyright Alg Detection.
- Content Forking System.

August 18
- Publishers can pay with BitTube for prefered related and auto play functions.
- Publishers can pay with BitTube for premium search. and listing rankings

August to October 18
- Community voting System.
- Exchanges per BIP.
- Mobile Apps beta and listing rankings.

October 18
- Smart TV Solutions.
- Alternative Switch from Mining to Pay with BitTube.

November 18
- Start of premium BitTube owned content.

BitTube

BitTube - SWOT Analysis

BitTube is the newest project of an established business and developing team on Tenerife, Spain. The system is based on blockchain and media technology. BitTube's primary market is targeting special communities with high potential media streaming.

Strengths

- **Expertise:** Founder with experience in technology.
- **Management Team:** Main departments with high skill managers.
- **Development Team:** Mixture of motivated people of different age.
- **Proof of concept:** Most services in place, working environment.
- **Cost:** Low network and hardware cost.
- **BitTube Cryptocoin:** The **BitTube** build Coin take the dependencies away between rewarding and payment system.
- **No debts:** The actual system is completely build with the capital of the founder.

Opportunities

- **Workplace:** Tenerife is a location with good living opportunities for employees. This helps to build an international team to grow the business.
- **Market:** Use the chance of first mover to build a big community.
- **Competitors:** Change of reward system on big players like youtube.
- **Business idea:** Grow the business with the combination of reward system and own Cryptocoin.
- **Fair use reward system:** Build the first world wide rewarding system for media files and other copyright data with fair use rewards independent from companies, governments and location.

Weaknesses

- **Lack of capital:** To build a worldwide marketing **BitTube** needs funding.
- **Reputation: BitTube** had no time to build up a reputation.
- **New:** Low brand visibility today.

Threats

- **Competition:** Other players might come with similar technology.
- **Community depended:** Find the approach to open markets.
- **Quick expansion:** Hire new people in short term.

BitTube

What is in place

Already live and in beta to achieve the goals from the roadmap.

BitTube Platform – the portal for all services full responsive for all devices*.

BitTube Broadcast – the streaming platform for gaming and entertainment*.

BitTube TV – the streaming channel for TV stations*.

BitTube Education – the streaming channel for schools, universities and training*.

BitTube Video – the video portal with a rewarding system*.

BitTube Upload – the interface to the BitTube network* based a IPFS Protocol.

BitTube Remote control – the browser based remote control system.

BitTube Blockchain – the underlying technology behind the systems.

BitTube Coin – the new BitTube cryptocurrency to run the reward system.

BitTube Pool – the cryptocurrency management system.

BitTube Mining – the player based media mining technology and the stand alone miner*.

BitTube Blockchain explorer – for verifying payments and examining the blockchain.

BitTube Offline GUI Wallet – for managing the wallet.

All services are online at the BitTube *portal* **https://bit.tube**
**Beta*

BitTube – Coin

Monetize your content.

BitTube is a new streaming and data platform that returns the data sovereignty and ownership from companies and countries back to users.

BitTube uses the IPFS protocol as a data store. As a result, all data stored or retrieved via **BitTube** is no longer stored in large data centers but distributed worldwide in the **BitTube** network. No country, no data protector and no company has control over this data. Once uploaded, data can not be deleted or changed and is available to every internet user via any Gateway with a unique address (hash) worldwide. There is no censorship in the **BitTube** network.

BitTube gives users the opportunity to use this worldwide network at no cost while allowing copyright holders to monetize their media content through media mining.

How does BitTube work?

BitTube is completely browser based. **BitTube** consists of 2 parts.

1. In order to view data, no software installation is necessary. Only the browser of a device is sufficient to access all data in the **BitTube** network, regardless of who uploaded them or when and where.
   Not only can data uploaded through **BitTube** be viewed, but also all data with known hashes (addresses of the data) are available for viewing.
2. In order for the user to broadcast or let others view their screen through remote control, a small program is required: the **BitTube** Sender. This sender enables the browser to upload data to the **BitTube** network and to deliver a broadcast directly without a data center via the P2P network. With this program, the mining capacity can be optimized.

BitTube

Revenue

When viewing files, **BitTube** generates cryptocoins. Both data owners (copyright owners) and data viewers can earn.

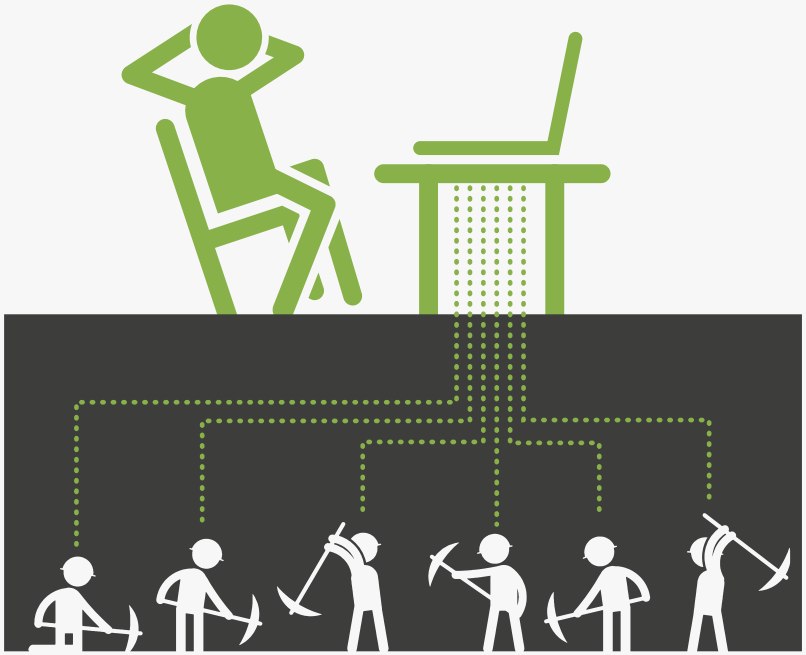
Revenue for users

It is important for the success of BitTube that the data owner earns from the first visitor, not just from a high number of followers.

The fact that even viewers can earn is the main driver for growing the number of users and the viewing time on the content in the short term. Especially users from low-income countries can be stimulated by this with little effort to increase their income attractively. Users with upgraded hardware, such as gamers, will run their hardware to mine in times when they do not use it.

Revenue for BitTube

BitTube receives 10% of all media revenue as income. Thus, BitTube is interesting for all users, since 90% of the distribution is currently not offered by any platform.



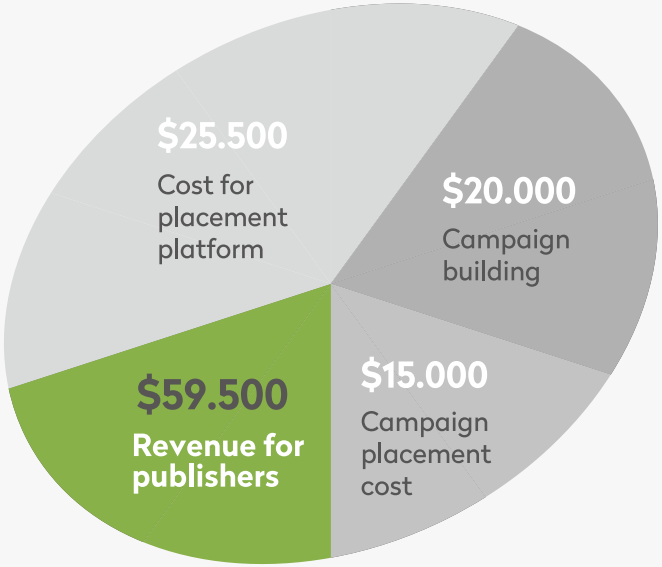
BitTube

Change the revenue broadcast for copyright owners. Comparative example of cost and revenue for publishers.

The classic way

Company decides on advertising and pays for building a campaign

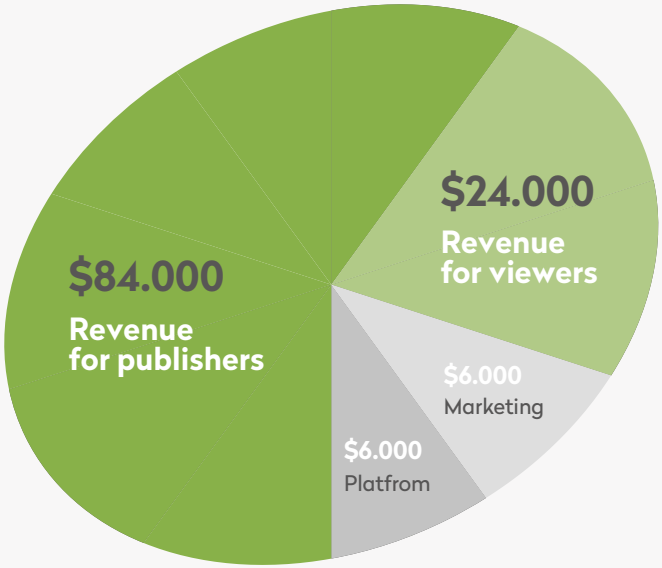
$120.000



The BitTube way

All rewards are generated by media mining

$120.000



BitTube

With **BitTube**, everyone gets their fair share. Comparative example of popularity impacting revenue for content providers.

The classic way | Click-based revenue platforms

Known worldwide

$100,000

= **Same clicks** =

Not widely known

$20,000

Rich countries

High advertising cost = High income

= **Same clicks** =

Poor countries

Low advertising cost = Low income

The BitTube way | Fair distribution through the BitTube platform

Known worldwide

$100,000

= **Same time** =

Not widely known

$100,000

Rich countries

= **Same time** =

Poor countries

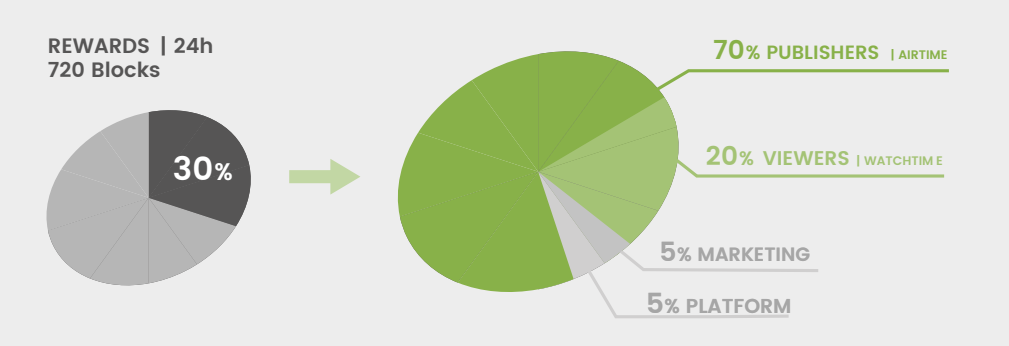
No difference between countries

BitTube

Goodbye views, hello Airtime

As writen in the roadmap in mid july 2018 we will implement the second phase of the BitTube reward system which will give higher rewards to media views.

Currently, video publishers earning 90% of the coins generated by the viewers, who are mining in direct competition with professional miners. Under the current model, viewers are able to generate only a tiny fraction of the newly mined coins, hence the publisher's revenue is very small. This was the system to install BitTube on the markets and to get a stable based on miners to operate the blockchain.



The new distribution system will be more balanced as it will let the miners work for the content platform to create additional earning potential for the publishers and for the viewers too.

We will reserve a fixed 30% of each new block reward specifically for rewarding publishers and the viewers and to fund further development and marketing.

May 2018, our reward is 454 **BitTube** coins per block, and a new block is created every 2 minutes on average. When the new distribution will take place, 30% of that reward (136 BitTube coins) will be distributed as follows: 70% to the video publishers, 20% for the viewers, 5% for maintenance and continuous development. The remaining 5% will be accumulated for marketing purposes, fees for listing on new exchange and airdrops.

On daily basis this 30 % share looks like this:

Beneficiary	Daily Reward	Share
Publishers	68,644 BitTube	70%
Viewers	19,612 BitTube	20%
Platform development	4,903 BitTube	5%
BitTube marketing	4,903 BitTube	5%
Total	**98,064 BiTube**	**100%**

Viewers will do minor Proof of Work

When a user is watching videos on his or her device, a very small amount of hashing power will be used, just the minimum amount needed to verify the watching time. This will improve user experience on mobile devices, as only 1–5 % of the CPU will be required for the Pow to play the videos. This is similar to CPU load for display.

The 20% of viewers share will be distributed proportionally to the total watching time of each logged in user. Each user will receive his/her reward directly in the online wallet, which is generated automatically and tied to the account at registration.

Publishers will get more revenue

The main actors on our platform are the people who create valuable, interesting, useful, entertaining, educational and original videos. We could continue with the list, but we think you got the point. Content creators and publishers will be rewarded better and fairer in comparison with the other platforms.

The 70% publishers share will be distributed based on the performance of all of their content, measured by airtime (the total amount of time a video or live stream has been watched).

This will be only the baseline: Additionally, each publisher will be able to benefit from a whole set of premium features.

The economy will improve

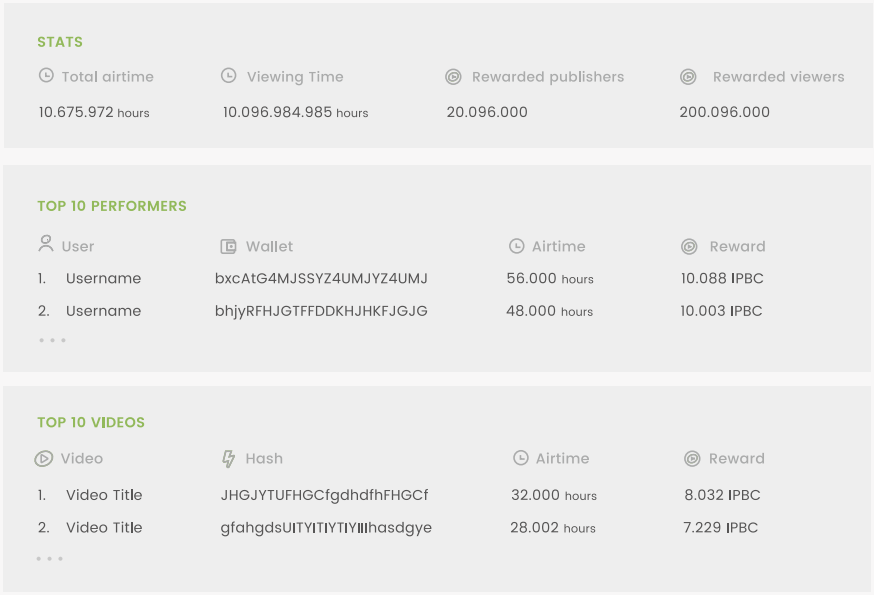
Delivering rewards to more people will create a positive revenue flow for all users, who will be able to spend them on the platform and make top performers stand out with their great work.

This will be a major factor for verifying that a certain publisher creates valuable content, so when he decides to publish premium videos, people can see his airtime and make a better decision about what to buy and from who. In this way, content creators will benefit from multiple revenue streams.

BitTube

More transparency

Every transaction will be traceable via the explorer. The information stored in a block will show the distribution allocation. This will also show how we have distributed all rewards and how much users are worth for the companies.



STATS

Total airtime	Viewing Time	Rewarded publishers	Rewarded viewers
10.675.972 hours	10.096.984.985 hours	20.096.000	200.096.000

TOP 10 PERFORMERS

	User	Wallet	Airtime	Reward
1.	Username	bxcAtG4MJSSYZ4UMJYZ4UMJ	56.000 hours	10.088 IPBC
2.	Username	bhjyRFHJGTFFDDKHJHKFJGJG	48.000 hours	10.003 IPBC

TOP 10 VIDEOS

	Video	Hash	Airtime	Reward
1.	Video Title	JHGJYTUFHGCfgdhdfhFHGCf	32.000 hours	8.032 IPBC
2.	Video Title	gfahgdsUITYITIYTIYIIIhasdgye	28.002 hours	7.229 IPBC

As privacy coins gained popularity, authorities are keeping an eye on them. According to Forbes, a recent meeting between the Japanese Financial Services Authority (FSA) and industry experts considered prohibiting cryptocurrency exchanges from listing or accepting private coins on their platforms. That's why we are going to take measures to overcome possible threats.

We are going to define a whole new way of using a privacy coin like BitTube, which will bring more transparency and valuable information about rewards allocation: everyone will be able to see the reason why users get paid, how much is the potential for earnings, and a list of top performers.

With the new transparency system which is completely unique in the blockchain world, we are building barriers which will limit the cases of copyright breaches, child porn or other illegal activities on the BitTube platform. Our target is to build a user-friendly system with the aim to grant the right to free speech but not as a place for illegal actions. To reach this full transparency is as important as to stay without any censorship.

BitTube

Platform

BitTube will have a wide variety of monetization combinations. Pay per view, Subscribe or even collect donations or a combination of all of those.

The producer will keep 90% of his/her premium sales. **BitTube** will be out of the box platform to get access to all content via all devices, including native mobile apps and smart TV.

What sets BitTube apart from another video on demand service platforms is the all in one solution for:

- Hosting unlimited videos
- Video encryption for greater security, privacy mode and closed user groups
- Offer content on Subscription and PPV (pay per view) model
- Classification of Videos as stand-alone (Movies) or with Episodes (TV shows)
- Geographic blocking of videos for greater distribution control and license limitations
- Analytics to understand the viewership of your video content
- Mobile, Tablet App (iOS & Android) and smart TV

BitTube

BitTube sub-branding

We decided to implement the concept of sub-branding for theme platforms for different categories and user groups.

The first upcoming sub-platforms for June and July 2018 are:

- **xxx.bit.tube** for all adult content, in here goes all content like porn or violence which is inappropriate for other users
- **kids.bit.tube** for proved child content. This content will be checked by Bit.Tube before released to this channel. We will also have approved publishers who are licensed to self-approve content for kids for entertainment and education
- **edu.bit.tube** for education and training videos or live broadcasts designed for schools, universities or private companies
- **tv.bit.tube** specialised for TV stations.
- **premium.bit.tube** delivering exclusively the premium content that can be found on the platform.

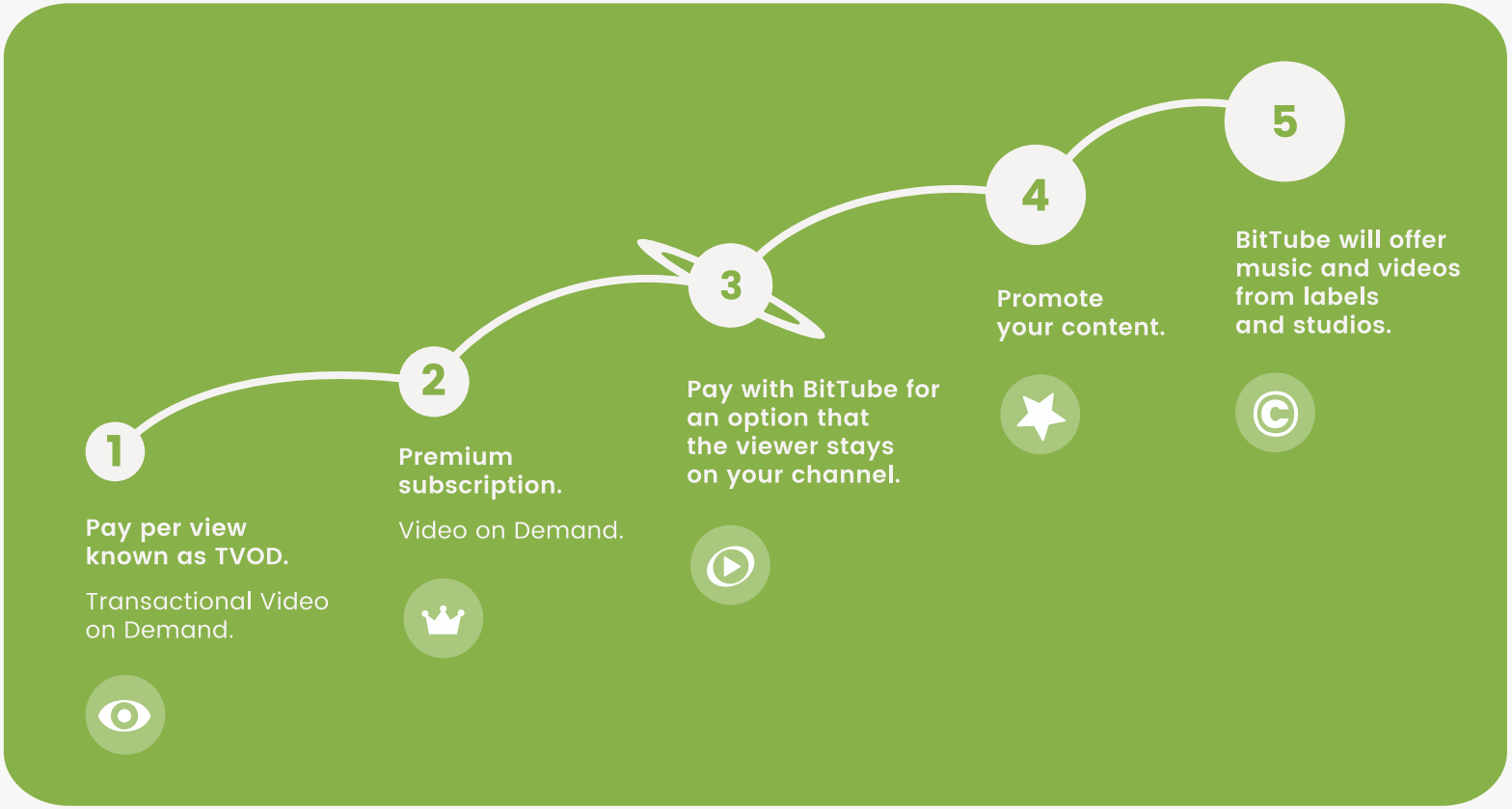
All content without the **xxx.bit.tube** will be also available on the main platform **bit.tube**. The sub-platforms are for special marketing and channeling.

More platforms will follow with the growth of **BitTube**.

BitTube

2018 Products Roadmap

BitTube is about to change that. In addition to the reward for airtime, we plan to develop a suite of 5 new products that will allow producers to monetize their videos in different and complementary ways, and also to promote their content.



BitTube

Products and premium features

Many people have been asking what would be the reason for buying BitTube coins, the 5 upcoming products are the answer to this question. The existing big players in paid content like Netflix, Amazon, HBO currently deal only with media giants which don't leave many options for the individual producer to monetize their videos.

Premium features will increase usage of BitTube coin

On the **BitTube** platform users will have the ability to buy content directly from producers with **BitTube**. We are building with the underlying ecosystem **BitTube** a market for content generators who are in niche markets, who are new, who are not well known. There is a huge audience interested in consuming new, interesting and high-quality content which is not currently available in the mainstream media. This content can be paid and viewed with **BitTube**.

Content creators will have the options in their hand to monetize their production in the best possible way they choose. On the other hand, viewers will have different possibilities to contribute and evaluate the work of the producers. Our goal is to establish the new standard for what means a versatile video platform on the Internet.

Providing the ability for content creators to become sellers and generate real earnings by making a high-quality video. Sellers are able to set their own prices while retaining all revenue earned, and buyers are able to quickly access the content they want with the satisfaction of supporting the artists they love.

We plan to develop a suite of 5 new products that will allow producers to monetize their videos in different and complementary ways, and also to promote their content.

1. Pay per view is known as TVOD — Transactional Video on Demand.

The TVOD model means that you pay with **BitTube** for each piece of content you want to watch. Browsing the library is free, but users must pay for each show or series they want to watch. TVOD tends to have a higher revenue per view as the standard viewing model. This allows them to offer greater revenue to content creators.

2. Premium subscription- Video on Demand.

Users are charged in **BitTube** on a time basis subscription for user channels. This product is perfect for well known big publishers as they can control and manage their income. Revenues are going directly to the owner of the channel.

Also, we will offer category and theme channels in which the publishers can add their videos together with other publishers. This product is designed for small publishers to get the benefit of being promoted with other content. The revenues of this subscriptions will be distributed based on airtime to the individual publishers.

3. Pay with BitTube for an option that the viewer stays on your channel.

Publishers may want to retain their audience in their own channel to generate higher airtime. If this option is purchased **BitTube** will optimize the delivery of related videos on suggesting and auto-playing content uploaded by this user.

4. Promote your content.

Users will be able to purchase with **BitTube** higher-ranking in the search, categories and related content. This premium feature will come up with an advanced viewership analytics for the user's content. With this sponsored function publisher can extend the airtime because of the better ranking and increase there revenue.

5. BitTube will offer music and videos from labels and studios.

This is the most high-level product of **BitTube** which will come in Q4 2018 to Q1 2019. We plan to fund the acquisition of licensed popular videos or music and the production of **BitTube**'s own unique content. It will be available as premium product paid with **BitTube**. The community will be involved in the process and the creation.

BitTube

Business assumptions

As a difference to many other projects BitTube has a clear idea of business opportunities and growth together with a income plan.

At present, the big data companies are doing a lot of precautionary censorship to avoid problems with governments, such as media companies trying to bring their strengths into political decisions to adjust the copyright laws to their business interests. On the other side is the interest of the community in free speech, free information and the right of correct copyright use.

An open platform like **BitTube,** which takes care of the human right of free speech, unfiltered and uncensored information is the missing link for this community interest.

Platforms which grew with the communities are just acting against users. For example YouTube is changing the revenue plans with new restrictions (high numbers of users before you can earn money, cancel broadcasters because of "wrong" content).

BitTube is offering each user the same income base and is not taking actions against legally correct broadcasters. Only the community decides on the success or the failure of content.

Most platforms are only offering limited or no revenue options for users.

BitTube is also offering monetizing options for visitors with mining possibilities. **BitTube** is offering monetizing options also for visitors with mining possibilities.

Blockchain and cryptocurrencies are an interesting issue for a lot of people. But for most of them, it is an unreachable, highly complicated product.

BitTube is bringing blockchain and cryptocurrency with an easy solution to the community. The gap to be part of the new currency solution is minimized by the web solution from **BitTube**. Users do not need knowledge of security or programming. Being part of a cryptocurrency is just a mouse click away.

Cryptocurrencies are highly volatile but the bigger the community is more stable is the valuation. Then, the community of the **BitTube** coin will be bigger than those of other cryptocoins, as the coin is not the product. The product to build the community is the **BitTube** publishing platform with the potential of millions of users worldwide. These users are all members of the **BitTube** coin community and building the exchange network between the cryptocurrency **BitTube** and bank payments solutions.

The future of crypto currencies will be built on combined solutions like **BitTube**. The combination of a product and a monetizing system will bring cryptocurrencies into real life. The **BitTube** coin, together with similar solutions, will bring disruption and modification of the actual way of commerce and banking.

BitTube

Why BitTube?

There are many ways to view in the **BitTube** network stored data. **BitTube platform** is a way in which the holders of the data can generate income with it, without the need for advertising technologies.

The **BitTube** Browser uses a database to connect to numerous data points stored in the **BitTube** network. This data is displayed in the browser. A media miner built into the website generates cryptocoins while the data is being viewed, which are paid out to the copyright holders of the data.

Each **BitTube** user who uploads their data in the **BitTube** network via **BitTube** is connected to the database. In the customer profile, the user can deposit their wallet address. This address is used automatically when the cryptocurrency TUBE is generated by media mining.

Data owners can decide whether individual files are freely available or only available by media mining and therefore generating revenue when people view these files.

This mining operation itself is quite transparent, executed with the consent of the viewer (via OptIn) as opposed to something that covertly happens in the background. In this way, paid content can be provided without the need to implement expensive payment systems. Each visitor only pays with a defined low CPU and graphics performance, making advertising, which many find intrusive and annoying, effectively redundant.

Unauthorized uploading of files (copyright infringement) can subsequently be averted by assigning credit to the genuine copyright holders. Thus, copyright holders are able to earn money even with potentially unauthorized use of their works.

BitTube is completely operated and displayed via the browser. Mobile usage is also entirely browser based as opposed to relying on apps that can be controlled or shut down by app stores.

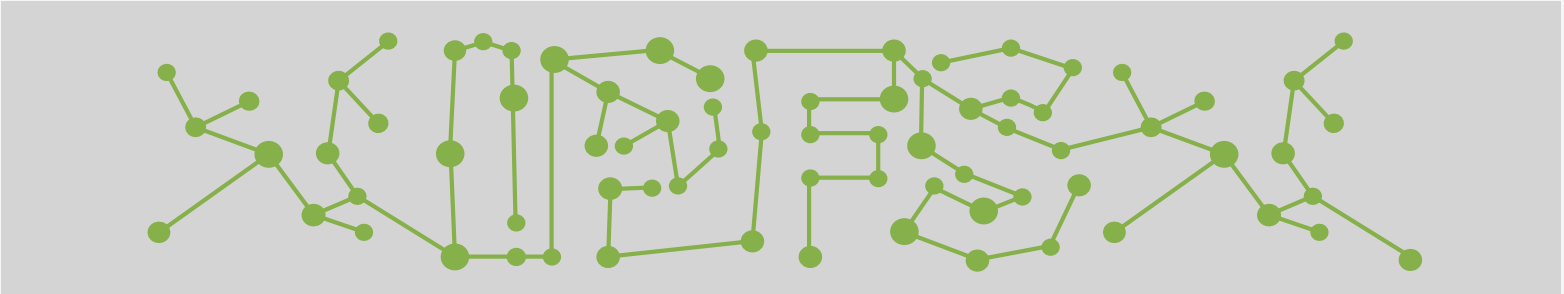
BitTube uses its own cryptocoin (TUBE), which significantly increases earning potential, especially for those users who participate in the initial stages.

The hashrate for mining can be individually adapted by the user, which allows them to generate revenue for while viewing themself video content published on the platform.

BitTube

How does BitTube work?

BitTube utilizes the IPFS protocol for its services. The BitTube network democratizes data and returns it to the users. Information stored in the BitTube network can not be blocked by governments or organizations.



The **BitTube** network is based on the protocol which uses blockchain technology to store data in a worldwide Peer2Peer network. With **BitTube**, data is no longer stored at a physically fixed address but transferred to a global server network and identified by means of a unique code (hash). **BitTube** avoids duplicate data management and reduces data transfer, as it always searches for the nearest and fastest data source.

Data stored with **BitTube** remains invariable and cannot be removed. If a memory is turned off, the data is still available on other memories via the same hash (unique document address worldwide). If a file is changed, it gets a new hash and is therefore available as a new file. Since the original data is still preserved, a versioning similar to Wikipedia texts is possible. In this way, all data stored in the **BitTube** can be tracked and analysed to its origin in development. Manipulations are not possible. Each user has access to the data origin.

Only physical addresses (for example, web pages) can be blocked, which is not the case for decentralized documents. If a node is switched off, many others will continue to be available with the data. If a page is switched off with a reader, other readers are available. This was used, for example, to provide Wikipedia in Turkey via IPFS protocol after the government shut down the website in Turkey.

BitTube | The coin

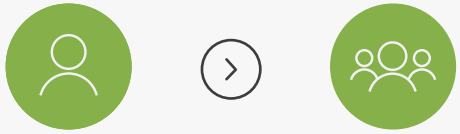
BitTube is a revolutionary new way of sharing content online. Practically any type of digital content may be broadcast.

Our vision is to provide a capable platform, while at the same time fundamentally re-thinking the way that copyright is protected and the way copyright holders are redeemed. As a result, the platform will be able to operate entirely free of advertising.

Furthermore, such a platform benefits greatly from a decentralized, scalable and persistent data store – essentially protecting from censorship.

The classic way

The BitTube way



The Community

The platform is provided as a service to the community of viewers and copyright holders. As such, the platform will be dedicated to establishing community-driven growth.

An appropriate voting system will be established within the platform to enable community participation in Baseline Improvement Proposals (BIPs). An important community task will be to determine possible fork paths of the coin, as well as decisions concerning the coin reserve.

At present, voting thresholds are set to 80% approval to effect signalling. Forums, live chats and relevant social media will be directly accessible from the platform.

BitTube

The **BitTube** broadcast infrastructure entails all the components required to provide a seamless experience within the platform and ecosystem in a scalable manner. The platform is protected from attacks by a combination of DDoSw prevention and proxy-filtering technologies.

BitTube **Publishing Platform**

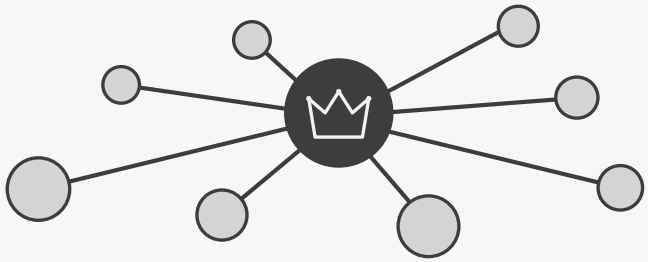
BitTube is at heart a content publishing platform with an integrated cryptocurrency ecosystem. The primary purpose of the cryptocurrency ecosystem, in turn, is of course to provide an asset with which to redeem the publisher (copyright holder). This approach allows the platform to remain free from advertising.

The publishing platform is located at **BitTube** and allows, among other things.

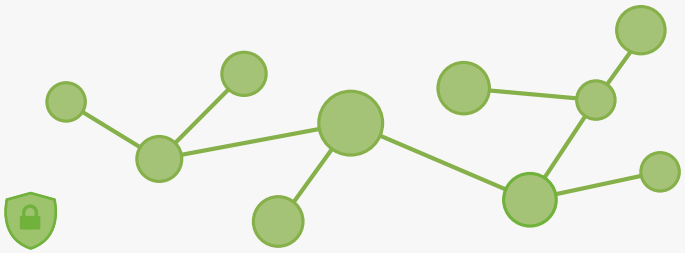
- **Live streaming of content.** This content can be programmed and mixed on the fly from among any number of video input sources, images, live streams, webcam images, desktop windows. A special Sender Software Application is provided for this purpose. During streaming, the streamed content is associated with an **BitTube** wallet address identifying the copyright holder – enabling redemption via **BitTube** coin.
- **Persistent, decentralized storage for uploaded content.** When a publisher uploads content, it is persistently stored in the IPFS decentralized network. It can't be modified or deleted later on.
- **Forking and aggravation of content.** The copyright holder may opt to permit explicit forking and aggravation of their content. In this event, the content aggravator appends a wallet address to the content. When the content is consumed, both the copyright holder and the content aggravator may share revenues according to a predetermined schedule.
- **Central wallet management for collecting payment and for mining.**
- **Remotely access and control other computers and devices, such as mining rigs.** This feature is provided as a convenience, and is completely decoupled from the **BitTube** blockchain. It uses the Sender Software Application to allow remote access.
- **Optional User Identity Verification allows community members to verify their identities.** Verified members of the community are visually identified as such on the platform, and their content shall enjoy priority over non-verified members' content.

Persistent Storage on BitTube

Persistent storage is achieved by use of the Interplanetary File System, IPFS as protocol. By using **BitTube**, the storage of uploaded content is secure, decentralized, and persistent. Content cannot be censored or manipulated after being uploaded. During publishing, the stored content is associated with an **BitTube** wallet address identifying the copyright holder – it is this that enables redemption via **BitTube** coin.



Centralized storage



Persistent & descentralized storage

Coin Mining and Wallet

After content is viewed or consumed, an appropriate amount of **BitTube** coin is appropriated to the copyright holder. The transaction includes an association to the consumed content. Effectively, the first community member to consume the content validates it, providing eternal proof of ownership to the copyright holder – because the transaction is stored on the immutable **BitTube** blockchain.

A full-featured wallet is integrated into the publisher's user experience, allowing for management of wallet addresses, transfer of assets, etc. The wallet is also used to manage association between wallet and content. Further, the wallet can be used as a stand-alone miner for the **BitTube** pool.

The applications permitting the consumption of content (except for mobile applications) contain an embedded miner in order to generate revenue for the copyright holder. During consumption of the content, a low value of the CPU of the viewer's computing power is used for mining. Mining takes place on the **BitTube** pool.

Mobile Applications

The development of mobile content consumption applications is currently underway. The applications contain a modified Power with low CPU consumption to verify the airtime in order to generate revenue for the copyright holder.

This has the advantage of not draining the batteries of mobile devices, as well. The emulated hash rate is based on a proof-of-work estimate considering the hardware capabilities of the mobile platform. The coinbase for redemption of content consumed in this manner is acquired by means of co-mining as described.

BitTube

BitTube Coin

BitTube Coin is a digital cryptocurrency token based on modified CryptoNight. The algorithm is ASIC and Nicehash resistant and has been enhanced to make it conducive to the **BitTube** ecosystem. **BitTube** coin is particularly suited for CPU mining.

Coin Economics

Initially, at the genesis of the **BitTube** blockchain, the maximum number of coins minable is set to 1,000,000,000 coins.

The difficulty level is adjusted after each block is found. The initial block reward at the genesis block is 10,000 **BitTube**. The average block time is approx. 120 seconds, with an emission speed factor of 21. The reward formula is based on difficulty and emission, there is no halving of rewards.

While there is no pre-mining of coins at or before launch of **BitTube**, co-mining will take place as soon as the main chain goes live. This co-mining is carried out by **BitTube** provided hashpower, and done on the **BitTube** mining pool (pool.**BitTube**). Revenues from co-mining are passed on to the viewers and users of the mobile applications, which are in turn passed on to the copyright holders as content is consumed on the mobile platform.

Transaction fees on the **BitTube** blockchain are variable, as given by the CryptoNote parameters.

BitTube

Coin Parameters

The parameters for the configuration of **BitTube** blockchain build are given below:

```
const uint64_t CRYPTONOTE_MAX_BLOCK_NUMBER                      = 500000000;
const size_t CRYPTONOTE_MAX_BLOCK_BLOB_SIZE                     = 500000000;
const size_t CRYPTONOTE_MAX_TX_SIZE                             = 1000000000;
const uint64_t CRYPTONOTE_PUBLIC_ADDRESS_BASE58_PREFIX          = 0xd1;          // addresses start with "B"
const size_t CRYPTONOTE_MINED_MONEY_UNLOCK_WINDOW               = 10;
const uint64_t CRYPTONOTE_BLOCK_FUTURE_TIME_LIMIT               = 60 * 60 * 2;

const size_t BLOCKCHAIN_TIMESTAMP_CHECK_WINDOW                  = 60;

// MONEY_SUPPLY - total number coins to be generated
const uint64_t MONEY_SUPPLY                                     = UINT64_C(100000000000000000);
const uint64_t TAIL_EMISSION_REWARD                             = UINT64_C(1000000000000);
const size_t CRYPTONOTE_COIN_VERSION                            = 1;
const unsigned EMISSION_SPEED_FACTOR                            = 21;
static_assert(EMISSION_SPEED_FACTOR <= 8 * sizeof(uint64_t), "Bad EMISSION_SPEED_FACTOR");
const size_t CRYPTONOTE_REWARD_BLOCKS_WINDOW                    = 100;
const size_t CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE          = 1000000;       //size of block (bytes) after which reward for block calculated
                                                                                 using block size
const size_t CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE_V2       = 1000000;
const size_t CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE_V1       = 100000;
const size_t CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE_CURRENT = CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE;
const size_t CRYPTONOTE_COINBASE_BLOB_RESERVED_SIZE             = 600;
const size_t CRYPTONOTE_DISPLAY_DECIMAL_POINT                   = 8;
const uint64_t MINIMUM_FEE                                      = UINT64_C(100000);
const uint64_t DEFAULT_DUST_THRESHOLD                           = UINT64_C(100000);

const uint64_t DIFFICULTY_TARGET                                = 120;           // seconds
const uint64_t EXPECTED_NUMBER_OF_BLOCKS_PER_DAY                = 24 * 60 * 60 / DIFFICULTY_TARGET;
const size_t DIFFICULTY_WINDOW                                  = EXPECTED_NUMBER_OF_BLOCKS_PER_DAY; // blocks
const size_t DIFFICULTY_WINDOW_V2                               = 17;            // blocks
const size_t DIFFICULTY_CUT                                     = 60;            // timestamps to cut after sorting
const size_t DIFFICULTY_LAG                                     = 15;            // !!!
static_assert(2 * DIFFICULTY_CUT <= DIFFICULTY_WINDOW - 2, "Bad DIFFICULTY_WINDOW or DIFFICULTY_CUT");

const size_t MAX_BLOCK_SIZE_INITIAL                             = 1000000;
const uint64_t MAX_BLOCK_SIZE_GROWTH_SPEED_NUMERATOR            = 100 * 1024;
const uint64_t MAX_BLOCK_SIZE_GROWTH_SPEED_DENOMINATOR          = 365 * 24 * 60 * 60 / DIFFICULTY_TARGET;

const uint64_t CRYPTONOTE_LOCKED_TX_ALLOWED_DELTA_BLOCKS        = 1;
const uint64_t CRYPTONOTE_LOCKED_TX_ALLOWED_DELTA_SECONDS       = DIFFICULTY_TARGET * CRYPTONOTE_LOCKED_TX_ALLOWED_DELTA_
BLOCKS;

const uint64_t CRYPTONOTE_MEMPOOL_TX_LIVETIME                   = 60 * 60 * 24;  //seconds, one day
const uint64_t CRYPTONOTE_MEMPOOL_TX_FROM_ALT_BLOCK_LIVETIME = 60 * 60 * 24 * 7; //seconds, one week
```

```
const uint64_t CRYPTONOTE_NUMBER_OF_PERIODS_TO_FORGET_TX_DELETED_FROM_POOL = 7; // CRYPTONOTE_NUMBER_OF_PERIODS_TO_FORGET_TX_DELETED_FROM_POOL *
CRYPTONOTE_MEMPOOL_TX_LIVETIME                                                  = time to forget tx
const size_t FUSION_TX_MAX_SIZE                                                 = CRYPTONOTE_BLOCK_GRANTED_FULL_REWARD_ZONE_CURRENT * 30 / 100;
const size_t FUSION_TX_MIN_INPUT_COUNT                                          = 12;
const size_t FUSION_TX_MIN_IN_OUT_COUNT_RATIO                                   = 4;

const uint32_t UPGRADE_HEIGHT_V2                                                = 60000;
const uint32_t UPGRADE_HEIGHT_V3                                                = 4294967294;
const unsigned UPGRADE_VOTING_THRESHOLD                                         = 80;                 // percent
const uint32_t UPGRADE_VOTING_WINDOW                                            = EXPECTED_NUMBER_OF_BLOCKS_PER_DAY; // blocks
const uint32_t UPGRADE_WINDOW                                                   = EXPECTED_NUMBER_OF_BLOCKS_PER_DAY; // blocks
static_assert(0 < UPGRADE_VOTING_THRESHOLD && UPGRADE_VOTING_THRESHOLD <= 100, "Bad UPGRADE_VOTING_THRESHOLD");
static_assert(UPGRADE_VOTING_WINDOW > 1, "Bad UPGRADE_VOTING_WINDOW");

const char CRYPTONOTE_BLOCKS_FILENAME[]                                         = "blocks.dat";
const char CRYPTONOTE_BLOCKINDEXES_FILENAME[]                                   = "blockindexes.dat";
const char CRYPTONOTE_BLOCKSCACHE_FILENAME[]                                    = "blockscache.dat";
const char CRYPTONOTE_POOLDATA_FILENAME[]                                       = "poolstate.bin";
const char P2P_NET_DATA_FILENAME[]                                              = "p2pstate.bin";
const char CRYPTONOTE_BLOCKCHAIN_INDICES_FILENAME[]                             = "blockchainindices.dat";
const char MINER_CONFIG_FILE_NAME[]                                             = "miner_conf.json";
} // parameters

const char CRYPTONOTE_NAME[]                                                    = "BitTube";
const char GENESIS_COINBASE_TX_HEX[]                                            =
"010a01ff000180a094a58d1d029b2e4c0281c0b02e7c53291a94d1d0cbff8883f8024f5142ee494ffbbd08807121013cf74fa64906408f92baf044458f865e13acbd4029f9d25df1
aaa72c7459fd72";
const uint8_t CURRENT_TRANSACTION_VERSION                                       = 1;
const uint8_t BLOCK_MAJOR_VERSION_1                                             = 1;
const uint8_t BLOCK_MAJOR_VERSION_2                                             = 2;
const uint8_t BLOCK_MAJOR_VERSION_3                                             = 3;
const uint8_t BLOCK_MINOR_VERSION_0                                             = 0;
const uint8_t BLOCK_MINOR_VERSION_1                                             = 1;
const size_t BLOCKS_IDS_SYNCHRONIZING_DEFAULT_COUNT                             = 10000;          //by default, blocks ids count in synchronizing
const size_t BLOCKS_SYNCHRONIZING_DEFAULT_COUNT                                 = 200;            //by default, blocks count in blocks downloading
const size_t COMMAND_RPC_GET_BLOCKS_FAST_MAX_COUNT                              = 1000;
const int P2P_DEFAULT_PORT                                                      = 24181;
const int RPC_DEFAULT_PORT                                                      = 24182;
const size_t P2P_LOCAL_WHITE_PEERLIST_LIMIT                                     = 1000;
const size_t P2P_LOCAL_GRAY_PEERLIST_LIMIT                                      = 5000;
const size_t P2P_CONNECTION_MAX_WRITE_BUFFER_SIZE                               = 16 * 1024 * 1024; // 16 MB
const uint32_t P2P_DEFAULT_CONNECTIONS_COUNT                                    = 8;
const size_t P2P_DEFAULT_WHITELIST_CONNECTIONS_PERCENT                          = 70;
const uint32_t P2P_DEFAULT_HANDSHAKE_INTERVAL                                   = 60;             // seconds
const uint32_t P2P_DEFAULT_PACKET_MAX_SIZE                                      = 50000000;       // 50000000 bytes maximum packet size
const uint32_t P2P_DEFAULT_PEERS_IN_HANDSHAKE                                   = 250;
const uint32_t P2P_DEFAULT_CONNECTION_TIMEOUT                                   = 5000;           // 5 seconds
const uint32_t P2P_DEFAULT_PING_CONNECTION_TIMEOUT                              = 2000;           // 2 seconds
const uint64_t P2P_DEFAULT_INVOKE_TIMEOUT                                       = 60 * 2 * 1000; // 2 minutes
const size_t P2P_DEFAULT_HANDSHAKE_INVOKE_TIMEOUT                               = 5000;           // 5 seconds
const char P2P_STAT_TRUSTED_PUB_KEY[]                                           = "";
```

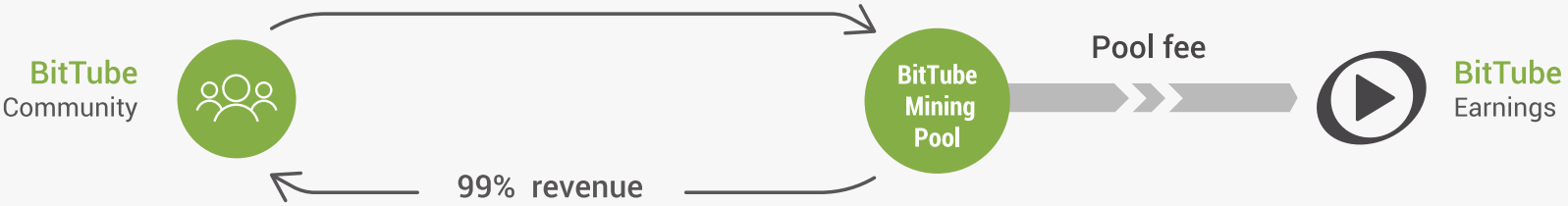
Mining Pool

BitTube can be mined at <pool.**BitTube**> or <BitTube/pool> using the CryptoNight algorithm. A portion of the pool's hashpower will be provided by **BitTube** for the purpose of co-mining coins. These co-mined coins are distributed on a per-share basis to members of the community resp. to the copyright holders of content consumed.

A miner is built into the **BitTube** Sender software which allows a content publisher to mine **BitTube** independently. The pool is also open to the general public, with a wide variety of mining software that is commonly available.

It should be noted that the mining pool is the **BitTube** infrastructure's sole source of revenue, not any other fees or costs imposed onto members of the community, nor any advertising revenues.

The necessary funding to maintain the mingplatform and infrastructure will be raised by a pool fee, and by limited co-mining.



Wallet

Online GUI wallet address generation is available through the user interface of the platform. Offline GUI wallets for various platforms are available. These wallets will support transactions on the **BitTube** blockchain.

Blockchain Explorer

A blockchain explorer is provided at <explorer.**BitTube**> or <BitTube/explorer>. The blockchain explorer queries across the entire **BitTube** blockchain. Queries can be made using wallet addresses or transaction hashes.

Additionally, portions of the explorer are integrated into the mining pool's user interface, to permit e.g. direct transaction queries.

Exchange Listings

Livecoin, Crex, Tradeogre, Altex, Forbler exchanges are expected to realise within the time frames outlined in the roadmap, based on community input.

BitTube

Media mining

The **BitTube** player comes installed with crypto mining functionality. Mining is used to create a revenue collection system for both copyright owners as well as users on the platform.

As opposed to other content platforms this is not based on advertising. Each user can create a wallet or enter an existing wallet.

Within the mining interface, settings such as device capacity allocated for mining can be adjusted. Here, the earned coins are displayed and transfers can be made.

Between 10 and 30 hashes per second are always credited to the copyright holder. Users can decide for themselves whether they provide more computer power for mining. All hashes over 20 are then automatically credited to the user's wallet. This makes **BitTube** one of the first platforms that also provides viewers with a revenue stream instead of ads, which users often find annoying.

Users can also use this method to accumulate credit that can be used to view content on mobile devices. For technical reasons (battery power and heat generation), mobile mining will be implanted inn July. Files can be viewed on mobile devices with accumulated funds.

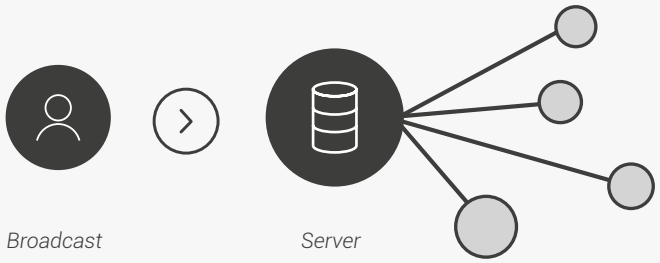
The mining software can be set to work even if the user is not viewing files. All hashes generated during this time are allocated to the PC owner's wallet.

BitTube receives 1% of all generated hashes as a service fee for the operation of the platform. This is considerably lower compared with conventional platforms. Users get to keep 99% of the generated revenue. No platform currently offers its users this high a percentage as a payout.

Broadcast

BitTube Broadcast takes place without a transfer server. For most competitive streaming services, the stream is first transferred to a central server and distributed from there.

The classic way



The BitTube way

Streams like those can be limited or blocked at any time. There is a constant control of the data. **BitTube** streams, on the other hand, cannot be blocked, limited or controlled.

With **BitTube**, the stream is provided as an address only. The stream itself is distributed via a P2P network. The more users are connected on one stream, the more users distribute this stream worldwide. The stream can not be suppressed because it does not come from an address, but is provided from a distributed network. The streamer is not directly localized, thus censored in this way, which makes this service interesting especially for areas where strong censorship takes place.

Each stream can be connected to the crypto wallet of the streamer and thus be made practically payable. Visitors watching this stream generate revenue for the streamer. Unlike many other platforms, the streamer at **BitTube** starts earning revenue from the first viewer. There are no payout limits. Even small amounts can be transferred or used at any time.

Broadcasting can be integrated into third party websites with the **BitTube** embed player. Since the mining functionality is integrated in the player, you can use your own websites to generate income as well.

Broadcast is ideal for small TV or VIDEO stations without expanding the coverage area. This is possible worldwide as well as via IP geolocation in regionally limited areas. These streams can be offered free of charge without media mining, whereby the TV stations over the longer range can achieve higher incomes with their advertising partners. Alternatively, the stations can also reach additional sources of revenue for the transmitter by mining. This is just as possible for radio stations that can offer their music stream through the player. All this is possible without investing in the infrastructure. Each channel requires a streaming PC, which is connected to an internet line. Via a line, several channels can be offered.

Broadcast is the standard solution for video games and eSports video portal.

Every logged in user can upload their own videos via **BitTube**. These videos are not stored on **BitTube** servers but are transferred to the **BitTube** based on IPFS protocol network via the **BitTube** gateway. Therefore, these videos are available for viewing worldwide. They can not be deleted or censored by **BitTube** or anyone else.

BitTube only provides a video search engine for the **BitTube** network, making them searchable for others.

In the event that the owner does not want a particular file to be accessible to all users, **BitTube** offers the option of uploading videos privately without visibility on **BitTube** search engine. As long as the address hash values of these files are not distributed, they are only accessible for users with the hash address. There is virtually no way to find these addresses elsewhere. This type of content can be monetized from the first views.

You can save your own videos in the IPFS network without sharing the address. This will allow you to earn revenue by cryptomining even when viewing your own content.

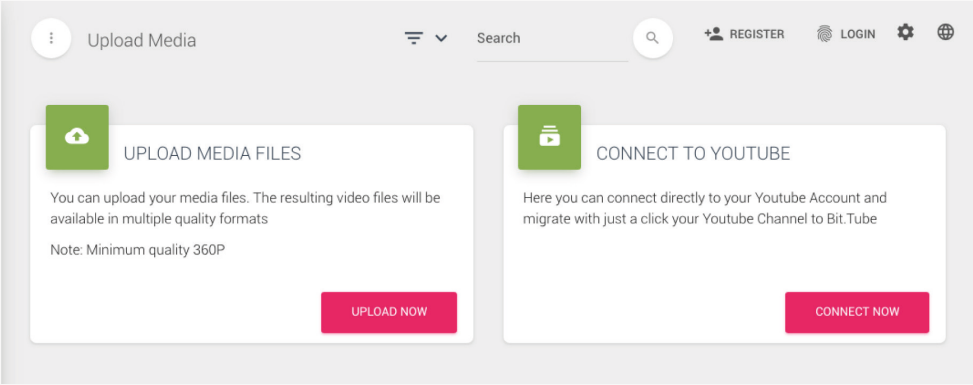
The **BitTube** Player can also be embedded in third party websites and portals. This way video bloggers can commercialize their posts in their own blogs, for example. **BitTube** is the first portal that offers an opportunity to generate revenue without annoying third party ads.

Upload to BitTube Network

BitTube has built a gateway to upload data files to the BitTube network. The link to the data will be saved to the BitTube Meta Tag database.

To store data in the worldwide BitTube network, a gateway with upload function is necessary. **BitTube** has built a gateway to upload data to **BitTube**.

The **BitTube** gateway has no filtering system in place to bring any censorship to files. The gateway can only be used by registered users of **BitTube** who certify with their upload that they have the right to use this data.



For all data that is uploaded through the **BitTube** gateway, a link will be saved in the Meta Tag database. Additional info (title, description, tags) can be added to this link. The link can be specified as open to everyone or just to private groups.

Links can be deleted from the meta tag database, however, content never can be deleted from the **BitTube** network.

As an additional function in **BitTube**, existing content can be added as a link through the gateway to the **BitTube** Meta Tag database.

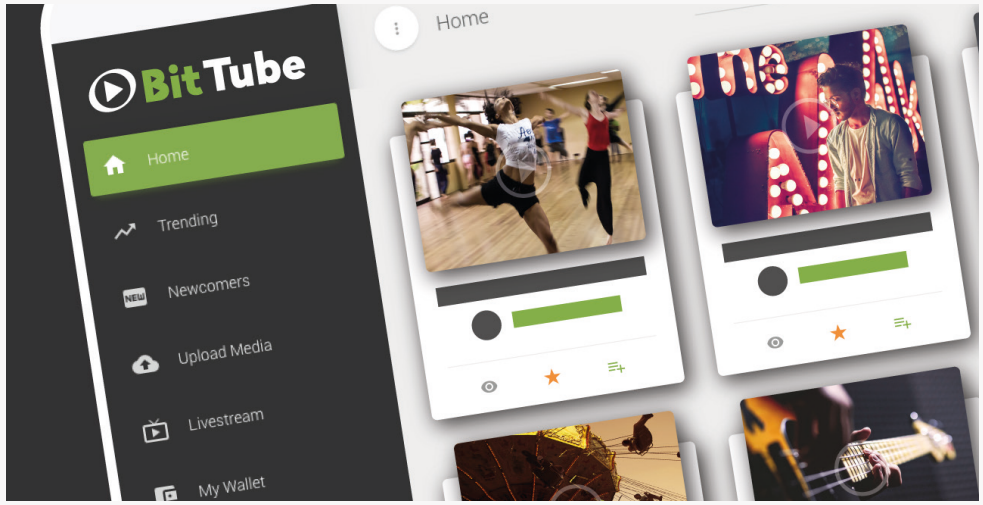
BitTube

BitTube Publishing Platform

To view data which is available in the IPFS network, **BitTube** has built a publishing platform on which all the data stored in the BitTube Meta Tag database is shown.

The **BitTube** Meta Tag database is searchable and the publishing platform itself is structured by categories. To view content from the IPFS network, you just click on the link and the **BitTube** player shows the content on the device.

To monetize the content, a base principle of **BitTube**, the user agrees to using the CPU and graphic capacity for mining the **BitTube** coin.



The used mining capacities are defined by the size of the device and limited to a maximum of 30 hash/s. They can be adjusted by the user.

BitTube is not censoring on the content of the **BitTube** Meta Tag database.

The right of free speech is a strong right and **BitTube** is dedicated to this.

It is the obligation of the community to check the correct usage of the system and to report unauthorised or illegal usage.

BitTube

Copyright

As copyright is a very high valued good, **BitTube** has built a system which allows copyright owners to control their products and monetize them through a fair use reward system.

BitTube is a Meta Tag DB search engine that only displays links to foreign data. All data accessible via these links are the responsibility of the **BitTube** users who have uploaded this data. **BitTube** can never delete this data because **BitTube** has no administrative access to the **BitTube** network based on IPFS Protocol. On behalf of the actual rights holders, **BitTube** can remove entries from its own Meta Tag DB. In this way, however, the data remains accessible via the hash value with every gateway if a user knows this hash value or the link is stored in another gateway.

Alternatively, **BitTube** may assign entries within the **BitTube** Meta Tag DB to the true copyright holder and charge the link within the **BitTube** Reader. Thus the rightful owner can generate income with their content being distributed across the **BitTube** website even in the event of unauthorized upload.

The ongoing copyright review system ensures that the copyright known in the system can not be violated by registered or anonymous users.

BitTube

Pattern proof system
Allowed Copyright usage & Copyright assignment

Pattern proof system

BitTube builds a pattern proof check that detects and compares types of content. This pattern checker is not limited to videos but can check patterns of all file types. The purpose of this pattern proof check is the comparison and cross-referencing of content and thus assigning copyright.

Copyright disputes often occur in musical works. This is where the **BitTube** pattern proof verification begins.

Verified users (for example, young composers) can upload their works via **BitTube** and submit the copyright via a pattern proof entry. If another user is now using this material, the pattern check recognizes the violation and does not allow the registration of this content for this user in the **BitTube** search engine.

Allowed copyright usage

The verified user may wish to allow the use of their work for a fee. In this case, they authorize the use and receive a share of the revenue generated by people using their content.

Copyright assignment

Works uploaded or registered via **BitTube** can be assigned to subsequently registered verified copyright holders. Currently the main problem with content platforms is that they have to take explicit action against copyright violations by either deleting or blocking the content on the platform. **BitTube**, however, is not a data platform, but a Meta Tag DB with a database and its own display interface. Due to the IPFS network's design, **BitTube** can not delete any individual content items.

BitTube could delete the entries from its own database, which would make it more difficult to locate the content. However, this wouldn't make it impossible to do so.

A proposed alternative for copyright holders would involve creating a verified account on the **BitTube** platform and claim the copyright. In this case, all proven works will subsequently be associated with the copyright owner's wallet, which from then on will receive the **BitTube** interface copyright infringement revenue. Through this principle, copyright owners also earn from original copyright infringements once rightful ownership has been established and assigned. At the same time, this allows for increased distribution of the content.

BitTube

Anonymity

Every internet user can view data via **BitTube** without logging in. **BitTube** does not collect any personal information such as a name, address or an email for the purposes of viewing content.

In order to upload content to the BitTube network and the BitTube search engine, the user must have a valid account and be logged in. Minimum requirements are a username and a valid email address which is used to verify the account. All other personal information is optional. No IP numbers or other data will be collected during upload.

Especially for companies or professional providers of streams and videos, BitTube offers the possibility to fill the account with detailed information including brand information and content as well as personalizing their own BitTube content with any promotional material. In order to register copyright claims the account must be verified.

All BitTube users can decide themselves how much or how little personal information they wish to provide. Email addresses are never shown to other users in the BitTube interface.

BitTube can not discover locations of devices uploading, streaming, or viewing because the connections are only authorized via signaling servers via handshake, and the connection itself is never running on BitTube Server.

BitTube will delete unlawful links from the database according to international standards. BitTube will not censor entries for political reasons. BitTube can not remove content from the IPFS network.

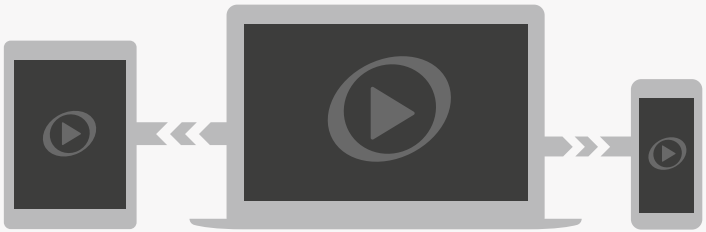
BitTube

Remote control Desktop Sharing

BitTube is a set of different services, all working on their own, but also intertwined and interconnected.

Remote Control Desktop Sharing

BitTube Remote Control connects devices encrypted directly together without having to go through centralized servers. The connection between the devices is made by means of a signaling server, which is used only for ID and PIN synchronization. At no time will the connection be made through the **BitTube** server and at no time will **BitTube** be able to monitor the connection.



The whole system is anonymous because **BitTube** has no information on who owns the devices and where they are located. After establishing the connection, it is made directly between the devices and encrypted. This way, the connection cannot be monitored by others because it is never routed through third party servers.

BitTube Remote Control takes place completely in the browser.

Desktop sharing (https://en.wikipedia.org/wiki/Desktop_sharing) is a common name for technologies and products that allow remote access and remote collaboration on a person's computer desktop through a graphical terminal emulator.

The most common two scenarios for desktop sharing are:

1. remote login;

2. real-time collaboration.

Remote log-in allows users to connect to their own desktop while being physically away from their computers. Systems that support the X Window System, typically Unix-based ones, have this ability "built in". Windows versions starting from Windows 2000 have a built-in solution for remote access in the form of Remote Desktop Protocol and prior to that in the form of Microsoft's NetMeeting.

The open source product VNC provides a cross-platform solution for remote log-in. Virtual Network Computing (VNC): Making Remote Desktop Sharing Possible. Remote desktop sharing is accomplished through a common client/server model. The client, or VNC viewer, is installed on a local computer and then

connects to the network via a server component, which is installed on a remote computer. In a typical VNC session, all keystrokes and mouse clicks are registered as if the client were actually performing tasks on the end-user machine.

The shortcomings of the previous solutions are their inability to work outside of a single NAT environment. A number of commercial products overcome this restriction by tunneling the traffic through rendezvous servers.

Apple users require Apple Remote Desktop (ARD).

Real-time collaboration is much a bigger area of desktop sharing use, and it has gained recent momentum as an important component of rich multimedia communications. Desktop sharing, when used in conjunction with other components of multimedia communications such as audio and video, creates the notion of a virtual space where people can meet, socialize and work together. On the larger scale, this area is also referred to as web conferencing.

BitTube Remote Control desktop sharing is different to most known solutions. It is a direct device to device connection without the man in the middle. Only the handshake on the connection is realized by a signaling service.

There is no software on the receiving computer necessary, **BitTube** Remote Control works in the browser only. On the remote PC a small **BitTube** app needs to be installed to send the screens and receive the commands. The **BitTube** browser interface allows registered users to manage and maintain unlimited number of RC devices and start the connection with a mouse click.

As **BitTube** Remote Control is completely browser based, you can operate your saved connections from every device worldwide without installing any software.

BitTube

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The authors are members of the core development team, as well as associates of the Marketing and Management Corporation. The authors also are actively involved in the development of the **BitTube** mining pool, are active miners, and will hold **BitTube** coin as a result of mining efforts.

This document is an outline of the **BitTube** ecosystem infrastructure. It is intended as an introduction to the vision behind **BitTube** based on technologies immediately available today. It is in no way intended as an aid, guide, or advisory for investment purposes. Opinions expressed in this document are solely the authors.

BitTube is a company founded in 2017, with its headquarters located in Tenerife, Spain.

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Links

BitTube publishing platform | **https://bit.tube**
The **BitTube** mining pool is located at **https://pool.bit.tube**
The **BitTube** blockchain explorer is located at **https://explorer.bit.tube**