



White Paper

White Paper of Bills project contains the primary aspects of our technology. It describes existing problems of contemporary market, the process of token purchase by future advertiser, the process of advertisement content moderation, as well as some possible problems and how they can be solved. We have described our Smart-contract in very simple words in order to make it maximally accessible to all interested parties. Smart-contract is fully operational. If you are interested in technical details regarding our technology, please contact us.

Currently advertising services market is plagued by several negative factors including:

- a constant need for advertiser and advertising services provider to sign work contracts.
- the need for personal meeting between client and service provider that it not always possible.
- a great amount of time invested into such endeavors.

The last problem is probably the most important one. Our technology removes the need for personal meetings or signing contracts. Now you won't have to wait for several days before your advertisement is finally published. This is especially important if you need to publish your advertisement as soon as possible.

Bills is a Smart-contract based on Ethereum blockchain that is currently the most popular blockchain in the world.

Bills allows clients to place their advertisement to any of our billboards located in any place in the world within a couple of minutes without even leaving their homes or offices. Bills has been developed in order to ensure that the content of published advertisement provided by our client cannot be changed by any third party, to remove the possibility of losing said advertisement and guarantee the availability of our service at any moment which can not be achieved by any centralized application.

Blockchain Technology

Blockchain technology suits the needs of our project like no other current technology. Due to capabilities of our Smart-contract as well as Ethereum blockchain technology in general, we can place advertisements provided by our clients in any city, any subway station, train car, shopping centre etc. At the same time, the advertiser can be sure that his/her advertisement will be shown to the public for precisely the amount of time he/she has paid for when renting the billboard. His/her data will be safe and cannot be somehow altered or lost.

This gives our service advantage over centralized applications as they are susceptible to DDOS attacks or can be rendered unavailable when advertiser requires them most. Bills is decentralized, thus it cannot be put out of commission.

Tokens and Technical Implementation

BLS tokens play a key role in our ecosystem. Only they can and will be used as the only possible payment instrument for our system.

Now let us speak briefly about billboard renting process, advertised contents moderation and placement onto an installed billboard.

Advertisement placement occurs in 4 steps, namely:

- Choosing the required billboard
- Sending advertising banner or clip to Smart-contract address
- Processing of provided contents by our moderator
- Publishing advertisement to the billboard

Choosing a Billboard

The advertiser will be provided with a project website where he/she can choose required billboard in a desired location (country, city) and see the price of its rent in tokens. The client will be able to see the direct stream from a video camera installed near the chosen location. The client will be able to see billboard location, traffic and other data he/she may find interesting.

In order for Smart-contract to identify which advertisement is going to be shown on any particular billboard, advertiser has to know billboard ID assigned by the system. These ID numbers will ensure that each billboard transmits only selected advertised content. ID will be available to a client both on website and billboard itself.

Sending Advertisements and Moderation of their Contents

After the client has chosen a billboard, he/she has to provide an advertisement that can be both a simple static banner or a full video clip. After the advertisement is ready, the client will purchase a required amount of BLS tokens. Then he/she sends all required data including unique billboard ID and advertisement itself to the Smart-contract address and indicates the amount of time he/she would like the advertisement to be displayed at the chosen billboard. Smart-contract calculates the costs of service in tokens, deduces the required amount of tokens from client's account and transfers them to Smart contract account, records the precise time and date of client order arrival and sends the advertisement to the billboard.

Registration of precise time for client order arrival is performed in order to compensate the client for the time spent by moderator to process his/her advertisement.

As we are not aware of advertiser intentions, our moderator has to check the advertisement for any possible content that may be prohibited by laws of the country where billboard is located. The published advertising content is checked only for compliance with country legislation. If we have not found anything that might violate country laws, then advertisement is guaranteed to be displayed at the billboard for a predetermined amount of time and we won't be able to remove it until such time expires. This is what makes blockchain technologies so attractable for customers - anything that gets into blockchain will remain there forever. Our technology is no exception to that rule. We have no technical means to alter the rental period, change the contents of advertisement or discharge a greater amount

of tokens from our client's account. We are only capable of checking out the contents of published advertisements.

What Happens if Any Violations are Found

If our moderator has found any violations of country laws in advertisement contents, such advertisement as well as advertiser address and any information we have received from him will be deleted. Tokens that he/she paid for our services will be returned to his/her account fully. Information received from advertiser are deleted and tokens are returned automatically, without any further input from our side. We only give a 'permission' to delete the advertisement if it has not been published yet.

Displaying on Billboard

If we have not found any violations, advertisement is uploaded into blockchain and published at the billboard.

Infrastructure of billboards that our team will develop will be capable of sending billboard ID to Smart-contract in order to obtain required data, namely: the contents of advertisement and expiration time and date for it. The advertisement will be shown on billboard immediately after such data is received by Smart-contract.

As we said earlier, after that we won't be able to stop showing the advertisement, thus guaranteeing its broadcasting.

What do We need to Implement our Technology

As you may understand, our project - Bills Smart-contract - differs from most technologies and other ICOs in that we, at least, have a complete and fully operational Smart-contract, and we are ready to share its [source code](#). Even now the contract is already capable of transmitting advertisements to special billboards specifically designed for such tasks and scheduled for further installation.

Our Smart-contract operational status was tested on websites and we demonstrated its capability of broadcasting advertisements via such test sites during Smart-contract development stage as there are no specialized billboards available for now, however, we already have development plans for such billboards.

Collected funds will help us start developing and installing specialized billboards compliant with our technical requirements.

In order to fully implement our project we hope to gather 10 000 ETH from our investors.

Distribution of collected funds

All funds invested into our project will be distributed as follows:

60% will be spent on billboard development. We plan to install our first Bills billboards by the start of 2019.

20% will be allocated as reserve funds required for billboard maintenance.

10% will be spent on developing software code for billboards and establishing their stable Internet connection to our Smart-contract. Billboard will be connected to Internet via local Internet providers.

10% will be spent as employee salaries (for software engineers and moderators).

Additional Information

We want to be completely honest with you, therefore we have decided to share the history of our application development.

As we were writing our Smart-contract, we wanted to test operational status of our technology.

In order to do this, we needed a test website and a Smart TV. After Smart-contract was launched in the test network, we wrote a small code on our test site. This code allowed us to receive information from blockchain.

Then we opened Internet browser on our TV (it had an embedded browser), went to our site and the TV assigned itself a unique ID number. Then we acted as advertisers: we have purchased an advertisement using test tokens, indicated TV ID as a billboard and confirmed publication of our advertisement. As a result, our advertisement banner appeared on the TV screen as soon as we finished our transaction. Then we finally understood the significance of our application for potential advertisers. Just imagine that instead of TV, this advertisement could have appeared on a digital billboard installed in a street, on a train, a subway station or a shopping center.

Your advertisements can appear there in the blink of an eye and you don't even have to leave your office or home. This is a dream for any advertiser!

We sincerely believe in the potential of our idea and we will strive to implement it as soon as possible in order to alleviate problems characteristic for contemporary advertisement services.

If you would like to become our investor, please, [refer to our ICO in progress](#).