



« Big Data validation made by Humans written in the blockchain »



White Paper

Version 0.5

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1. ORIGIN OF THE PROJECT

To give some context, the project was born thanks to another project that our team works on, Adscot.

Adscot is an app that connects brands and people, we noticed that there was a significant market of people, especially on social networks, that would praise some brands, for free and by conviction.

After much research, especially amongst the major influencers of contemporary marketing, such as Philip Kotler, these people supporting brands by conviction are of paramount importance for large and small groups of companies.

They are the very essence of the evolution of the brand's image but, for the time being, these people are not being rewarded.

Hence, the Adscot application which would refer to advertisements made by social network users to put them in touch with the targeted brands.

Depending on the popularity and activity of the social network user, our application would provide an assessment to the target brand so that it pays them as adequately as possible.

In summary, the advertising users would use our app to promote and advertise the brand,

our task is to provide the brand with information and together create an advertising campaign to reward the app users.

But we found a fundamental problem in the process. How to verify that the data provided by the users are true, authentic, and original?

We first thought of an automatic analysis via botnets, but we quickly discovered that such technology was not suited to our needs.

There is also the problem of image analysis, how to analyze them to prove that an image is related to the initial advertisement?

It was therefore inevitable to have to conduct a human analysis for these data.

At first glance, we wanted to conduct an internal analysis, with the staff hired by us to analyze the data, but there were related issues:

- How to prove the competence and integrity of our internal staff?
- How to bear the costs related to the staff?
- Should we hire another person to oversee each language used?

We have found a solution to these three problems: **Blockchain**.

2. « BIG DATA » IN THE BLOCKCHAIN

It soon became clear to us to use a decentralized service to handle this massive data verification task. However, no service related to the existing blockchain today offers this type of service.

Instead of facing the problems mentioned above, we thought why not create this decentralized service ourselves?

If our Adscot app is such a need it is obvious that other companies have it too.

Why create an internal service suitable only for Adscot when this service could be used by many others and moreover, on the blockchain

Avence was launched.

The blockchain is the essence of Avenge as it will allow to:

- Reward the auditors
- Indelibly mark the proof of verification (on the blockchain)
- Decentralize the service so that everyone can use it
- Organize everything in a smart way

How to implement it? Simple, thanks to the "Proof of human" protocol which we will explain.



3. PROOF OF HUMAN

Proof of Human will be the protocol used by Avenge, so that the "proof of work" managing each transaction on the blockchain through the algorithmic force of computers (nodes) is connected to the blockchain also called "Miners".

Our miners will not be machines but humans, meaning that every transaction made on our blockchain will have to be validated by a human.

In practice, take the example that interests us, here Adscot, will provide the data requiring human validation to Avenge, these submitted data will create transactions in the "Confirmation pending" stage.

According to the difficulty of the parameter set by Adscot the transaction will be verified as soon as the number of humans set in parameter by the difficulty is reached and has had all data verified.

Figure 1:

Adscot provides to Avenge 1000 pieces of data requiring verification and choses 5 human validations per data.

These 1000 pieces of data will instantly create 1000 transactions with the "To be confirmed" status.

As soon as a transaction has had the necessary number of human validations, it will go into a "Confirmed" status and will be definitively registered on the blockchain, this confirmation will activate a smart contract (Intelligent contract based on a source code allowing to automatically execute several tasks).

This smart contract will automatically reward each human who has been verified via the Avenge token and will automatically send a confirmation link to the Adscot application which will be able, thanks to this link, to have a proof of verification of its data.



4. AVENCE TOKEN

The Avence token will be the essence of the Avence service, it will be its currency. A company like Adscot will have to inject Avence Token on its blockchain private key to validate the data by humans.

It also has the free choice regarding the amount of token it wants to give to the people checking its data. The more Adscot allocates tokens per verifier the more prone will the transaction be to take precedence in the system, giving an advantage to the company that decides to better reward the auditors. Here is an example:

Auction system

To exemplify, an auction system will be implemented. Each block of the blockchain will be made available to companies, these blocks will contain a predefined number of transactions.

To decide on the allocation of the blocks, the company will need to bid for an amount of Avence Token for each block.

The company that bids the highest number of Avence Token on the block, will win, and can confirm its data.

The company bidding in second place will win the 2nd block and so on...

Figure 2

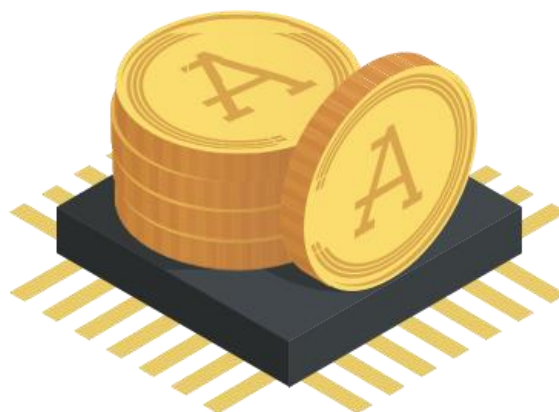
Adscot has 1000 pieces of data to check, the current value of the Avence token is \$0.14.

It decides to pay \$0.14 per human verification. Then, it must have 1000 tokens to submit its data to the "Proof of human" in the blockchain.

His tokens will only be debited if the verification is completely complete in a "verified" state and thus definitively registered on the blockchain.

Its tokens will only be debited if the verification is fully complete in a "verified" status and thus definitively registered on the blockchain.

All these tokens will be redistributed to the humans having verified the data, only a tiny portion of tokens will be calculated for reinjection into the Avence system to bear the operating costs.



5. AVENCE INTELLIGENCE (AI)

Beyond the data confirmation system, Avence offers an intelligent data analysis system called Avence Intelligence.

The purpose of the analysis protocol is to reflect the average point of view of the target user defined by our partners, providing crucial additional data to the choices of relevance in terms of perceived content validity.

In this sense, Avence intelligence is a system of artificial intelligence whose purpose is to be an authentic reflection of the conglomerate core of human intelligence by analyzing massive data.



6. INITIAL COIN OFFERING (ICO)

We will create a total of 242,770,000 Avence token for its operation. We decided to create a fundraising campaign based on these tokens (This fundraising campaign is called ICO)

This ICO consists of 3 phases which we will detail:

- The pre-ico (31,878,000 tokens reserved-\$1,275,120): at \$0.04 per token from \$14,000 tokens purchased.
- The pre-sale (80,000,000 tokens reserved-\$6,400,000): at \$0.08 per token from \$9,000 tokens purchased.
- The public sale: (130,892,000 reserved tokens-\$18,324,880): at \$0.14 per token without minimum required for the purchase of tokens.

Please note that according to this process, more than 50% of distributed tokens will be allocated to public sale.

So, here we have a mini revolution because almost all tokens will be reserved for the public and the company that wants to use the services

of Avence will have to buy its tokens directly from the market and, therefore, from the public with the tokens, which will significantly increase its market price.

That is, the clear majority of existing ICOs reserve some of the tokens for the main team, which is not our case.

At the end of the ICO if the maximum amount of 242,770,000 tokens is not reached, the remaining number of tokens will be directly injected into the Avence system.

Figure 3

Adscot has 1,000,000 pieces of data to verify on Avence, the current price of the Avence token is \$0.20 per token.

IF IT DECIDES TO PAY 0.4 PER TOKEN THROUGH VERIFIED DATA, IT WILL HAVE TO PLACE AN ORDER OF 400,000 TOKENS AT \$80,000 ON THE MARKET.

7. WHAT ARE THE PERSPECTIVES OF AVENCE'S INITIAL COIN OFFERING?

Content analysis in the Big Data era

While content analysis by humans undeniably provides a panel of additional information, it is generally accepted that massive data accumulation is an obstacle to systemic analysis from a human point of view, which is then substituted for a robot analysis, representing only part of the opinion of the average user, who is yet to be the very target for whom these contents are intended.

Indeed, the implementation of a massive data analysis structure represents a service that is

often too complex to implement for companies. Yet, this need is real and is multiplied by each company providing access to content production to its users. At Avenge, we think it is about time we submitted a response to this request, and therefore propose to be a service fully oriented to human content analysis, with the specificity of using the blockchain as an answer to the growing need of massive data analysis.

Blockchain as an answer to Big Data

Avenge detects in the unifying power of the blockchain an answer to the problem posed by Big Data. For example, a recurring argument about the impossibility of human data processing in the current public debate is that it is humanly impossible to continuously process all content produced by youtube.com users, feeding the service continuous 40 hours of video per minute.

This argument is used in favor of advocates of the YouTube algorithm, usually at the expense of even the service users, it frequently penalizes the latter by demonetizing or reporting a perfectly legal content.

Avenge proposes to create an answer to this argument, by creating its own network of verifier, unified by the blockchain. In fact, with around 2500 constant auditors, Avenge would be mathematically able to verify all the content produced on YouTube *.

Therefore, investing in Avenge is responding to this specific demand of the market that is human verification, creating a structure able to conglomerate rewarded users through the power of the blockchain.

In fact, Avenge proposes to respond to a double demand, on the one hand that of the need for human analysis of massive content, on the other hand, the urgent demand for means of obtaining equitable, international, and anonymous remuneration for a world population living in poverty, where the average wage does not exceed x\$/h, both of which feed on each other to increase the level of demand.

Thereby, it is precisely through this increase in demand that the appraisal for the Avenge token will be born: Avenge's compensation offers meeting the demand curve of paid work at more than x\$/h on the labor market inducing a determined number of users, getting Avenge's offer curve to meet the demand of companies in the private market for human audits.

These two increasing requests can only turn into appreciation of the Avenge token, and as result return on investment of the ICO buyers.

8. MILESTONE

The milestones are the goals of the project, the Avence and Adscot projects are interrelated, so we will state each goal to achieve for these 2 projects as a time line.

- Pre-ICO: First quadrimestrial 2018 - Final white paper for Avence (English/French/Korean/Chinese/Russian/Spanish), pre-launch website for Avence. Looking for new partners and investors, carrying out the first smart contract.

- ICO (Pre-Sale): Second quadrimestrial 2018 - Creation of the ~242 million Avence tokens, 2nd campaign of distribution of tokens.
- ICO (Public Sale): Third quadrimestrial 2018 - Public opening of the distribution of tokens - Prototype of the Avence application
- First BETA version of Avence: Q1 2019, opening to companies and first concrete test of the Avence/Adscot platform.

9. ADSCOT'S COMMITMENT

Adscot is committed to being the first application to use Avence to prove that the system works through a first real-life use case

By the end of the ICO it will have to buy tokens on the market to validate its data.

This first-use case will be the proof that our system works, and we can therefore sell to

companies wishing to benefit from the "proof of human".

Note that every company that will be appealed to by this service must have Avence token and will have to buy them on the market, the more companies interested, the more the price of the token will increase on the market.

10. THE INTEGRITY OF THE AUDITORS

Each auditor who enters the **Proof of Human** protocol must pass a pre-selection phase which consists of verifying a series of content to prove its integrity and ability to enter the network.

If they successfully complete their pre-selection phase, they will pass confirmed, their private key will be automatically created, and they will be an integral part of the network.

This pre-selection phase will also be registered on the blockchain to prove the strength of the network.

It is from this level that an auditor can start checking real transactions on the blockchain.

The transactions will have different difficulties:

- Easy (3 verifications)
- Average (5 verifications)
- Difficult (7 verifications)
- Customized (Free number of verifications)

As a reminder, a confirmed transaction will be reached if the number of verifications defined by the submitting entity is fully completed.

Once the verification number is fully completed, the positive and negative verifications will be registered on the blockchain transaction and forwarded to the entity that submitted it.

11. THE COMMUNITY

We are fully aware that the community of auditors that will provide the proof of Human to the data is the central pillar of the project.

We will make sure to create an interface, easy, pleasant, and easy to use so that they can verify the data effectively.

The user will have the full freedom to verify a data or not, if they decide that the number of tokens given to verify is too low, they are free to refuse it.

We are convinced that the community will grow on its own because we do not forget that wealth is not distributed fairly in this world and that there are many people seeking more varied means to support themselves.

Avence is a free, anonymous, and effective way to redistribute wealth.

Every person connected to the internet will have the probative force to be part of the community and we will do everything we can to target these people.

We trust our first members to spread the word around them as much as possible.

The success of the ICO will be a reliable indicator of the future scale of our community.

Therefore, the first owners of tokens will be interested in promoting the service so that the community increases and that the protocol "Proof of Human" becomes essential to businesses.

Each member of the community will be connected thanks to their private key on the blockchain, which they will get when they decide to acquire Avence token.

12. THE FOUNDING TEAM

Luca Mucciaccio (CEO): He is the chief executive of the project, currently IT consultant to the European Commission, he devoted all his free time to the development of this project for 9 months.

Luigi Piccicuto (COO): He is the operational chief of the project, recently graduated as a management engineer at the University of Mons, he handles the daily agenda of the project and advises the chief executive on his good management.

Romain Derie (CTO): He is the technological chief of the project, currently developer at the famous ERP Odoo, because of his talent, he provides all the necessary technology for the smooth operation of the project.

We are actively looking for new people to form a team of "Advisors", the 31,878,000 million reserved tokens aim to attract new talents and reward them in accordance to the investment of the people wishing to be part of the project.

We have 2 criteria for the recruitment of new talents for the team of "Advisors":

- The added value provided to the projects (Avence/Adscot)
- The belief in the projects (Avence/Adscot)

13. ENDNOTES

A document explaining in detail the technological architecture used by the project is being developed by our CTO.

In a world of decentralization, it is essential for us to make a difference.

Each company will be free of its own criteria for the data verification, this list of criteria will be made public and will be associated with the data confirmed on the blockchain.

The analysis made by robots does not replace everything, the human brings a sensitivity, a superior intelligence, and a different subjectivity in the analysis of data, such is the philosophy carried by the Proof of Human protocol.

The founding team,