



Clicktool

TECHNICAL WHITEPAPER

June 2018

Disclaimer

This document is for informational purposes only and does not constitute an offer to sell shares or participation in the Clicktool project.

The development described in this document is a conceptual model of a proposed system, rather than a complete specification of a service offering. The future development process and system specification may be subject to change.

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DIGITAL ADVERTISING

THE CURRENT MODEL

Since the advent of e-commerce in the 1990s, digital advertising has become a billion-dollar industry, providing business models for a large variety of companies. Online advertising not only allows companies to benefit from advertising revenues and sellers of goods and services to reach their target audience, it also enables cost-free online content and services. Information and online solutions become accessible to anyone without cost by being financed through advertising.

The current model includes the following stakeholders:

- **Advertisers:** The company that wished to advertise their service or product
- **Publisher:** The website or app owner that wishes to monetize their content by displaying advertisements
- **Viewers:** The end-user seeing the advertisement displayed during their web browsing or app use.
- **Campaign Platforms:** Intermediary agencies that connect the above stakeholders by allowing advertisers to create campaigns that can be displayed by publishers for viewers.

The end-goal of any advertising usually is to convert viewers into buyers. This is more likely if advertising is targeted, meaning advertisements are matched to users interests and browsing habits.

Various models exist for monetization of advertisements. The most common models are:

- **Cost per Thousand (CPM):** The cost of the advertisement is based on the number of times it is displayed, usually measured in 1,000 impressions. This model is inherited from the print media area.
- **Cost per Click (CPC):** A more accurate way to measure the impact of an advertisement is to focus on the number of times viewers follow an advertising link. The cost per click model charges advertisers every time a user clicks on an advertising banner. This model is the most common model used in the current online advertisement industry.

- **Cost per Acquisition (CPA):** Clicking on an advertisement is not enough in many cases for the ad to be considered successful. The cost per acquisition model limits charges to these cases in which a viewer takes a specific action. This action is usually making a purchase, but it can be something else. For example, a blog may place an advertisement to get readers. The action measured for payment, in this case, may be if a viewer stays on the advertised page for certain time, indicating he/she has indeed been engaged by the content.

Advertisement platforms keep track of these performance indicators, control payouts from advertisers to publishers and take a fixed fee, a cut of the payment, or both.

THE MARKET

Research firm Statista¹ defines the digital advertising market as follows:

“Digital Advertising uses the internet to deliver marketing messages via various formats to internet users. This includes banners (e.g. Skyscrapers, Overlays, Rich media formats), video pre-rolls or mid-rolls, search engine advertising as well as online classifieds and social media advertising”.

Figure 1 show how the market has behaved since 2016 how it is forecasted to grow according to Statista's research.

¹ Statista Research Firm - <https://www.statista.com/>
- 5 -

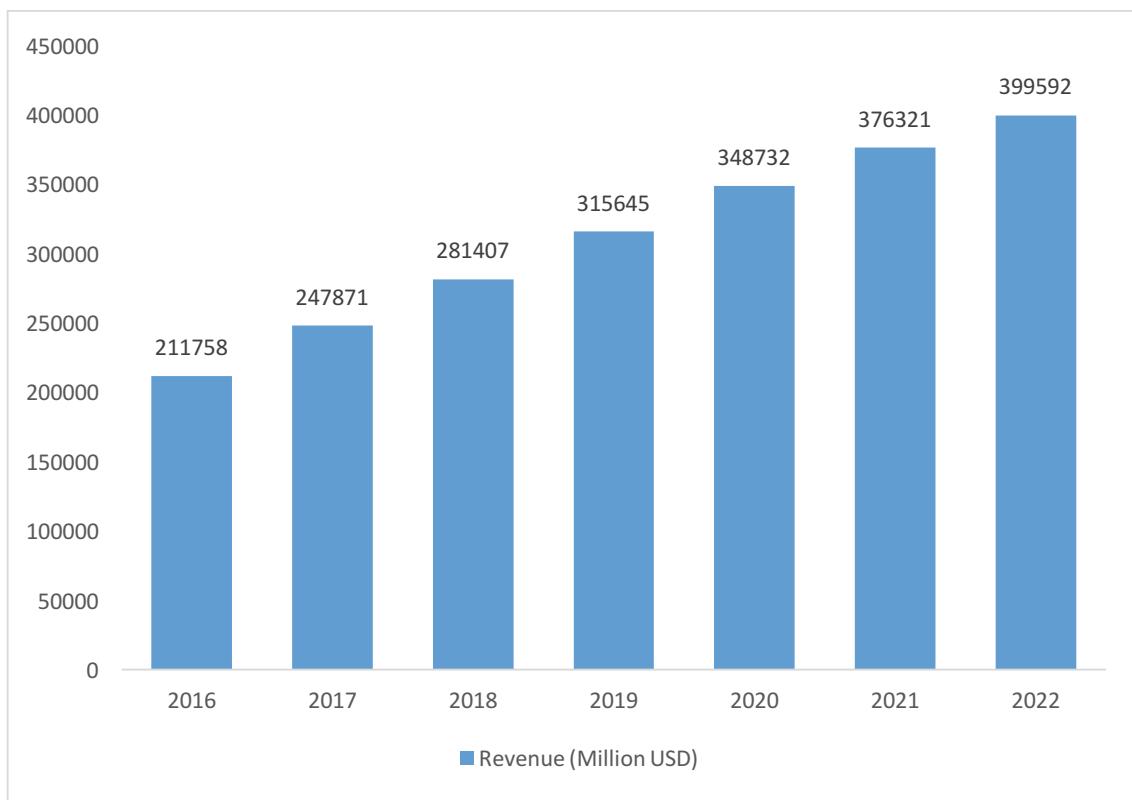


FIGURE 1 - EXPECTED GROWTH (SOURCE: STATISTA)

In recent years, digital advertising on mobile devices (mainly smartphones) has complemented desktop advertising. Currently, the bulk of digital advertising is made up by mobile advertising (70 %) according to Statista.

Forbes has also identified this trend, stating an expected market share of 75% for mobile advertising in 2018².

Another interesting statistic compares the different industry sectors that generate the digital advertising revenue. The retail sector clearly dominates this field, generating almost twice as much revenue as the runner-up sector (Figure 2).

² <https://www.forbes.com/sites/johnkoetsier/2018/02/23/mobile-advertising-will-drive-75-of-all-digital-ad-spend-in-2018-heres-whats-changing/#7667cfc3758b>

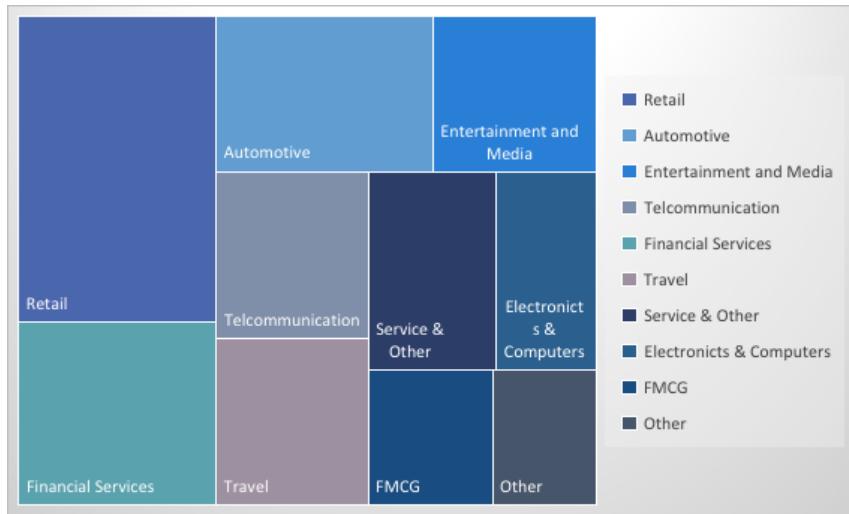


FIGURE 2 - REVENUE BY INDUSTRY (DATA: SOURCE: STATISTA)

These numbers clearly show the potential of the market. One additional fact to note, is that currently the market is completely centred on fiat currencies in a centralized model, the limitations of which we will explore in the next section.

LIMITATIONS

LACK OF TRANSPARENCY

The current model has a number of important drawbacks. First of all, advertising platforms are centralized entities. This means that they control the processes involved with creating, displaying advertisements and store all related data in their database.

Indicators of advertisement success, such as click rate, are measured and stored by the advertising platforms themselves. This means that the measurements used to determine payments are the sole responsibility of the party that benefits most from the values measured.

It is very difficult for customers to confirm the data presented to them by advertising platforms. Thus, advertisers cannot be sure they are charged the correct amount and publishers cannot be sure they receive the payments they are entitled to.

The current model clearly lacks transparency in this respect.

FAULT TOLERANCE

A further consequence of the inherent centralization of the current model is the fact that advertising platforms constitute central points of failure.

If the advertisement platform's database or communication infrastructure fails, accounting of conversion rates and due payments also fail. Depending on the actual implementation the whole marketing campaign may stop.

CURRENCY AND MICROPAYMENT ISSUE

Finally, there are drawbacks related to the way advertising cost is calculated and paid.

In today's international business environments cross-border transactions are the norm. Currency conversion and international money transfers are associated with enormous cost and in some cases with administrative complications. The US dollar is the most commonly used currency internationally but may not be accessible to some nations.

Furthermore, individual transactions related to advertising may be very small, constituting micro-payments that are not cost effective. This leads to complex payment batching, which can delay payments significantly.

LACK OF GRANULARITY IN ANALYTICS DATA

The information offered to advertisers on conversion rates, landing pages, etc. tends to lack detail. Usually, potential customers are redirected to a single landing page and analytics data is sparse. Ads on social networks, such as Facebook for example, can be fairly targeted. However, once the link is displayed to the user, the only tracking performed is whether the link is followed or not. This makes it particularly difficult to measure the rate of visits translating to buys, or

whether the advertised page is of interest at all to the visitor. Offering a CPA model is impossible, as the advertiser cannot track the visitor after following the link.

THE CLICKTOOL SOLUTION

DECENTRALIZED ADVERTISING

Clicktool is a decentralized advertising platform based on an underlying blockchain system and a decentralized database providing transparent target advertising solutions.

The system connects advertisers, publishers and viewers in a safe, reliable and transparent process. Advertisers can create campaigns on the platform, which are matched to content related publishers.

The system acts as an intermediary between advertising platforms, such as Facebook and Google AdSense,

To this end advertisers first create their campaign on Clicktool, before creating the relevant advertisements on compatible advertiser platforms, such as Facebook. Advertisers can create different landing pages on Clicktool. For example, an advertiser may decide to create three different landing pages for an advertisement.

Clicktool provides additional user tracking and analytics data. The advertiser can track which landing page works best for different types of customers, in terms of conversion rate and user behavior.

Due to the landing page analytics and re-direction facilities, it is possible to track which advertisement clicks are converted in purchase, allowing additional advertisement monetization options.

Because of this, the Clicktool advertising model provides both CPC and CPA payment options. Indicators for conversion rates and the process involved are visible in transparent transactions on the underlying blockchain implementation.

Click and acquisition numbers are transparently stored in a decentralized database maintained by a blockchain consensus algorithm. Transaction history is immutable and cannot be manipulated by the advertising platform, proving transparency to all stakeholders involved.

TOKENIZED ECONOMY

The Clicktool platform is powered by the Clicktool token, which is used as an in-platform currency for all payments and monetary exchanges.

The Clicktool token and the related business processes are implemented as smart contracts on the Ethereum blockchain and are interfaced with the decentralized database.

Advertisers pay for their advertising cost based on a CPC and a CPA model. The token can also be used for additional services, such as special promotions are incentivizing advertisers or other interested partners, such as agencies, to participate in the decentralized database network, validating the platform's analytics data.

This leads to an in-platform token economy as illustrated in Figure 3.

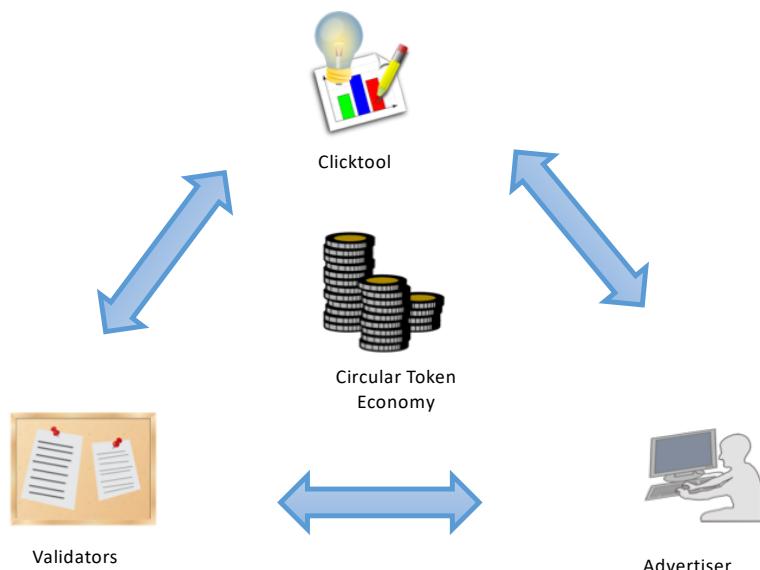


FIGURE 3 - CLICKTOOL TOKEN ECONOMY

CLICKTOOL APPLICATION

The screenshot shows a campaign management interface. At the top, there are navigation links for 'General Report', 'Onboarding', 'Settings', and 'Sign out'. Below that, a secondary navigation bar includes 'Campaigns', 'Landers', 'Offers', 'Affiliate Networks', and 'Traffic Sources'. The main content area is titled 'Campaigns' and displays a table of campaign data. The table has columns for Report, Campaign Name, Clicks, CTO, Conversions, CPC, Cost, Revenue, Profit, CTR, CR, ROI, and Delete. Each row represents a specific campaign with its details and edit/delete options. A summary row at the bottom provides overall statistics.

Report	Campaign Name	Clicks	CTO	Conversions	CPC	Cost	Revenue	Profit	CTR	CR	ROI	Delete
	METALS Sheila - generategreengold	530	19	0	0	0	0	0	3.58%	0.00%	0.00%	
	METALS Trennon - goldminemetaldetectors	2203	214	0	0	0	0	0	9.71%	0.00%	0.00%	
	METALS Katya - oskametal	5678	775	1	0	0	0	0	13.65%	0.02%	0.00%	
	METALS Noelle - hotmetalstudios	583	28	0	0	0	0	0	4.80%	0.00%	0.00%	
	AngelGoldman	501	0	0	0	0	0	0	0.00%	0.00%	0.00%	
	METALS Diamond - 138offer	11066	1063	0	0	0	0	0	9.61%	0.00%	0.00%	
	METALS Karim - purplegoldfund	1229	202	0	0	0	0	0	16.44%	0.00%	0.00%	
	Richgold Investment	574	50	10	0.3	172.2	0	-172.2	8.71%	1.74%	-100.00%	
Summary		22364	2351	11	0.04	172.2	0	-172.2	10.51%	0.05%	-100.00%	

FIGURE 4 - CAMPAIGN LISTING

The screenshot shows an offer management interface. At the top, there are navigation links for 'General Report', 'Onboarding', 'Settings', and 'Sign out'. Below that, a secondary navigation bar includes 'Campaigns', 'Landers', 'Offers', 'Affiliate Networks', and 'Traffic Sources'. The main content area is titled 'Offers' and displays a table of offer details. The table has columns for Id, Name, Url, and Edit/Duplicate/Delete. Each row represents an offer with its details and edit/duplicate/delete options. A summary row at the bottom provides overall statistics.

ID	Name	Url	Edit	Duplicate	Delete
00act1048-aa2d-4010-9fbd-e84c599ed3be	Offer 1	https://moneyroi.investments/register2/?...			
1feae610-2eaa-4edd-90f7-f9961e272426	Metals 8559107669	tel:855-910-7669			
7be3ae3d-b50b-4f7a-99df-1ef33e1931de	Metals 18559107669	tel:18559107669			
80f979ec-902c-4ca5-92bc-bc4de004cee8	Metals 18552510022	tel:18552510022			
95511448-9c03-407f-9b59-531b474cc09a	Metals 18553381828	tel:18553381828			
b5afbb36-7716-47c9-8f5e-9af7ca2c2a9	Metals 18556321917	tel:18556321917			
fe3849ca-03e2-4e41-8b33-496d666c7cbc	AngelGoldman Offer	https://angelgoldman.com/onelaststep/o...			

FIGURE 5 - OFFERS LISTING

Edit Campaign

Name: METALS Noelle - hotmetalstudios

Cpc: 0

Traffic Source: None

Query String:

[clickid] [os] [ip] [agent] [device] [country] [region] [city]

Path 0: 100 100.00% x

Lander	Url	Weight	Percentage			
Noelle v2	https://calinow.hotmetalstudios.com/	100	50.00%			
Noelle v4	https://calinow.hotmetalstudios.com/v4	100	50.00%			

Add Lander

Offer: Metals 8559107669: tel:855-910-7669 Weight: 100 Percentage: 100.00% x

Offer	Url	Weight	Percentage			
Metals 8559107669	tel:855-910-7669	100	100.00%			

Add Offer

Add Path

Submit

FIGURE 6 -CAPTION EDIT INTERFACE

CLICKTOOL IMPLEMENTATION DETAILS

OVERALL ARCHITECTURE

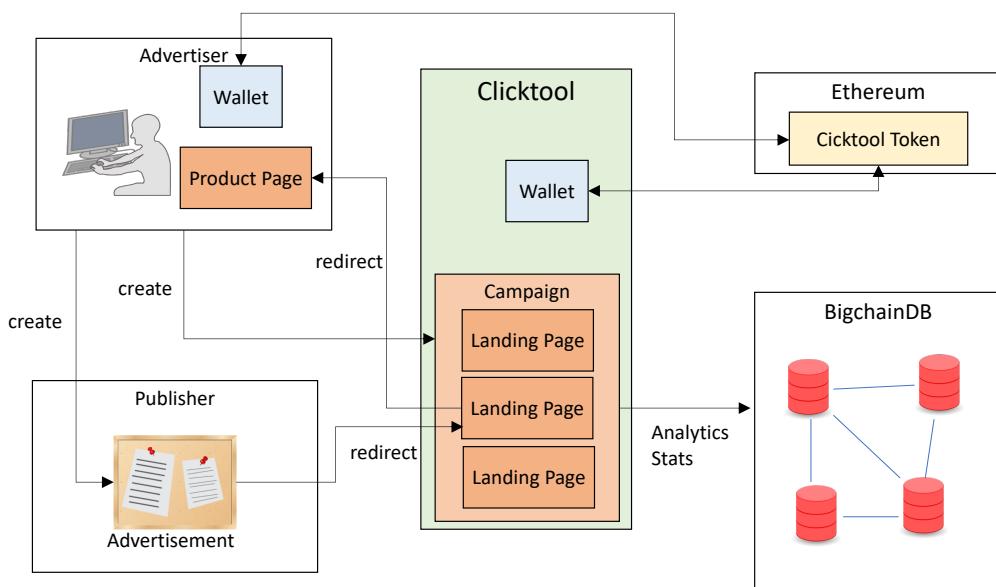


FIGURE 7 – ARCHITECTURE

Figure 7 illustrates the overall architecture of the Clicktool platform. The platform acts as a decentralized layer between advertisers and publishers.

Advertisers create advertisements on existing publishing platforms, such as Facebook and Google Adsense. They can then create a campaign on the Clicktool platform with several landing pages that incorporate the Clicktool analytics data tracking module.

Advertisements on the publisher platforms redirect customers to the Campaign's landing pages, where analytics data is captured, before the customer is re-directed to the advertiser's product page.

Analytical data is stored on a transparent Blockchain database using BigchainDB³.

Payments for the service are made through the ClickCoin token implemented in the form of a smart contract on the Ethereum blockchain.

BLOCKCHAIN

TOKEN ECONOMY

The token economy for the Clicktool platform will be implemented by a smart contract on the public Ethereum blockchain.

The token will follow the popular ERC-20 token standard, defined in EIP-20⁴. This allows the ClickCoin token to be compatible with ERC-20 compliant wallet software and libraries.

As an ERC-20 standard compliant token the ClickCoin token will implement the following interface:

```
1. contract ERC20Interface {
2.     function name() view returns(string name);
3.     function symbol() view returns(string symbol);
4.     function decimals() view returns(uint8 decimals)
5.
6.     function totalSupply() public constant returns(uint);
7.     function balanceOf(address tokenOwner) public constant returns(uint balance);
8.     function allowance(address tokenOwner, address spender) public constant
9.             returns(uint remaining);
10.    function transfer(address to, uint tokens) public returns(bool success);
11.    function approve(address spender, uint tokens) public returns(bool success);
12.    function transferFrom(address from, address to, uint tokens) public
13.            returns(bool success);
14.    event Transfer(address indexed from, address indexed to, uint tokens);
15.    event Approval(address indexed tokenOwner, address indexed spender,
16.                  uint tokens);
17. }
```

³ BigchainDB Blockchain Database. <https://www.bigchaindb.com/>

⁴ ERC-20 Token standard. <https://github.com/ethereum/EIPs/blob/master/EIPS/eip-20.md>

As the underlying BigchainDB storage system also provides support for divisible assets, the team may consider migrating the token to BigchainDB in the future. This decision will depend on whether standardized third party support for BigchainDB based tokens become available in future.

DECENTRALIZED STORAGE

In order for analytics data to be made transparently accessible to advertisers, they are stored on a decentralized blockchain database. The Clicktool analytics database is based on BigchainDB, which provides the data storage systems with the following properties:

- **Transparency.** Transactions on the blockchain are visible to all participants, improving the trust advertisers can have in the data provided.
- **Low latency transactions.** BigchainDB transactions are validated through fast Byzantine Fault Tolerance (BFT) consensus, resulting in much faster transaction confirmation than most blockchains.
- **Community validation.** Advertisers can participate in the validation protocol, increasing the trustless nature of the system
- **Immutability.** Transactions written to the BigchainDB data store cannot be undone or manipulated because of the underlying blockchain's cryptographic properties.
- **Low cost.** In contrast to storing data on another blockchain, such as the public Ethereum network, BigchainDB-based systems do not require transaction fees for storing data, resulting in a much cheaper storage system.

The BigchainDB system currently supports around 100 validator nodes that can participate in the BFT consensus mechanism. Whilst the team will try to increase this number as technology becomes available, validator roles will be randomly distributed amongst willing advertisers.

In order for advertisers to participate in the data validation process, they have to host a BigchainDB node. Users are incentivized to run nodes by payments in ClickCoin tokens.

CLICKTOOL PORTAL

The Clicktool portal, as illustrated in Figure 8 is the advertisers entry point to the Clicktool system.

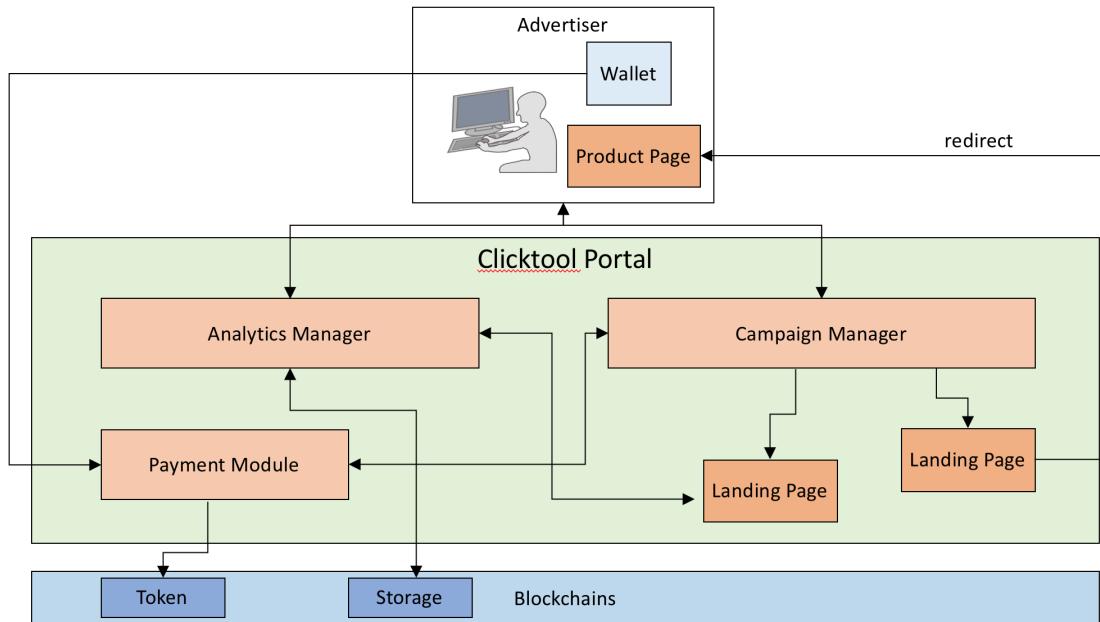


FIGURE 8 - CLICKTOOL PORTAL

There are two main user interface components advertisers can access:

- The **Campaign Manager** allows users to create and manage campaigns. Campaigns represent advertising campaigns hosted on a variety of supported publisher systems. Different landing pages can be created for a single campaign.
- The **Analytics Manager** allows users to access the analytics data of their campaigns, which are stored on the blockchain-based storage system.

In addition, a **Payment Module** interfaces with the user wallet and the ClickCoin token on the Ethereum blockchain.

In order to capture analytics data, JavaScript code is injected into the landing pages. This JavaScript code sends data to the analytics module, which in turn stores it in the blockchain data storage module.

CLICKCOIN

WORLD'S FIRST ADVERTISING BOOSTER TOKEN

Token Name	ClickCoin
Token Symbol	CLC
Token Type	ERC20
Total Supply	1,000,000,000
Decimal Places	18

The ClickCoin token is a fungible token implemented as an ERC-20 token on top of the public Ethereum blockchain.

The token has the following characteristics:

- Total supply of the token is large enough to scale in a growing market.
- Individual are small enough to allow for micro-payments.
- The token is divisible (18 decimals) to deal with a potential value increase.

TOKEN SALE

FUNDING PHASES

Soft Cap	\$2.5 Million			
Hard Cap	\$15 Million			
Token Price				
Private Pre-Sale Start	TBC			
Pre-sale Duration	2 months			
Pre-Sale Bonus	TBC			
Public Token Sale Start	TBC			
Public Sale Duration	18 weeks			
Bonus Rounds	Cap	Sale %	Price	
	Round 1	\$3.5 Million	25 %	\$0.014
	Round 2	\$3 Million	10 %	\$0.03
	Round 3	\$3 Million	7 %	\$0.4285
	Round 4	\$3 Million	3 %	\$0.1

The ClickCoin token will be made available through five token sale rounds. First of all, a private pre-sale will be held for selected investors. This is followed by 4 rounds of public token sale. The minimum funding goal (soft cap) is \$2.5 Million. Should this goal not be reached by the end of the token sale, the funding is returned to investors. The maximum funding goal (hard cap) is \$15 million. Once this goal is reached the token sale is closed automatically by the smart contract.

TOKEN DISTRIBUTION

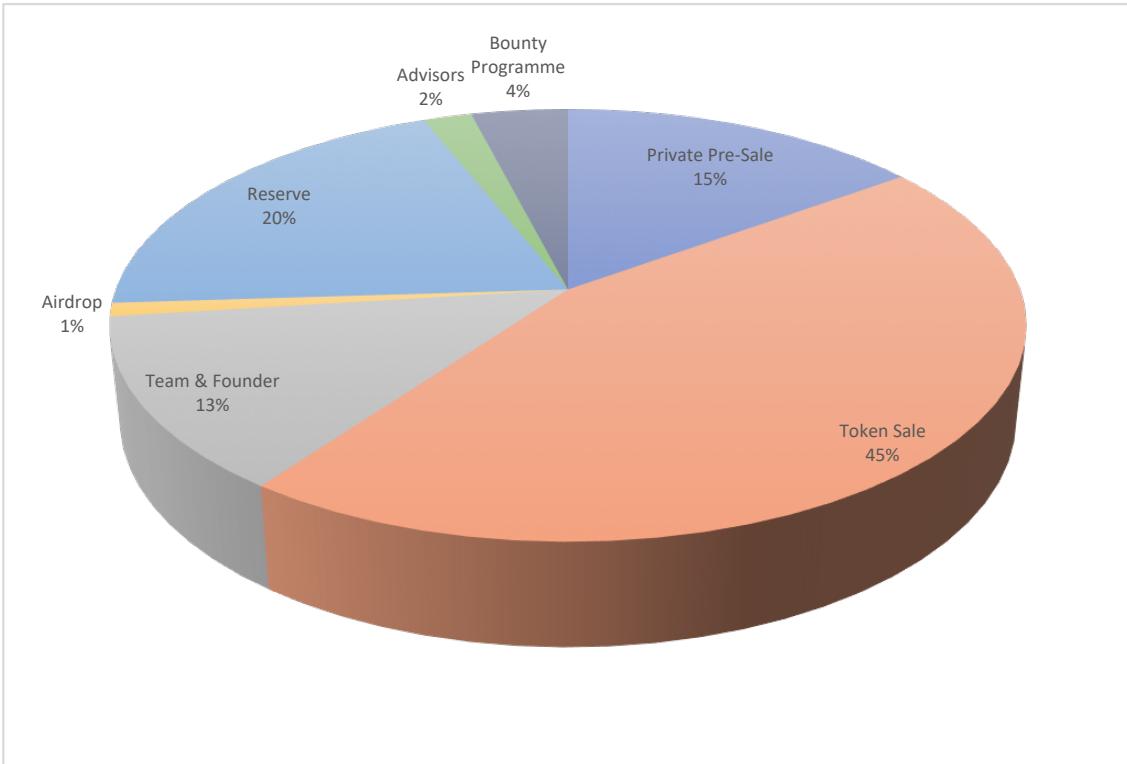


FIGURE 9 - TOKEN DISTRIBUTION

60 % of the total supply of ClickCoin tokens will be offered for sale in the token sale (15 % private pre-sale, 45 % public token sale), 13 % will allocated to the team and founder, 1 % to a promotional airdrop, 4 % to various bounty programs and 2 % to advisors.

Finally, 20 % of the tokens will be held in reserve.

TOKEN DISTRIBUTION AND CROWD SALE SUMMARY

60 % for Crowd Sale

Presale:	15 %	\$2.5 Million		
Public Sale:	45 %			
		Round 1	\$3.5 million	25% \$0.014
		Round 2	\$3 million	10% \$0.03
		Round 3	\$3 million	7% \$0.4285
		Round 4	\$3 million	3% \$0.1

40% Platform Use

Team & Founder	13%
Airdrop	1%
Reserve	20%
Advisers	2%
Bounty Programs	4%

USAGE OF FUNDS

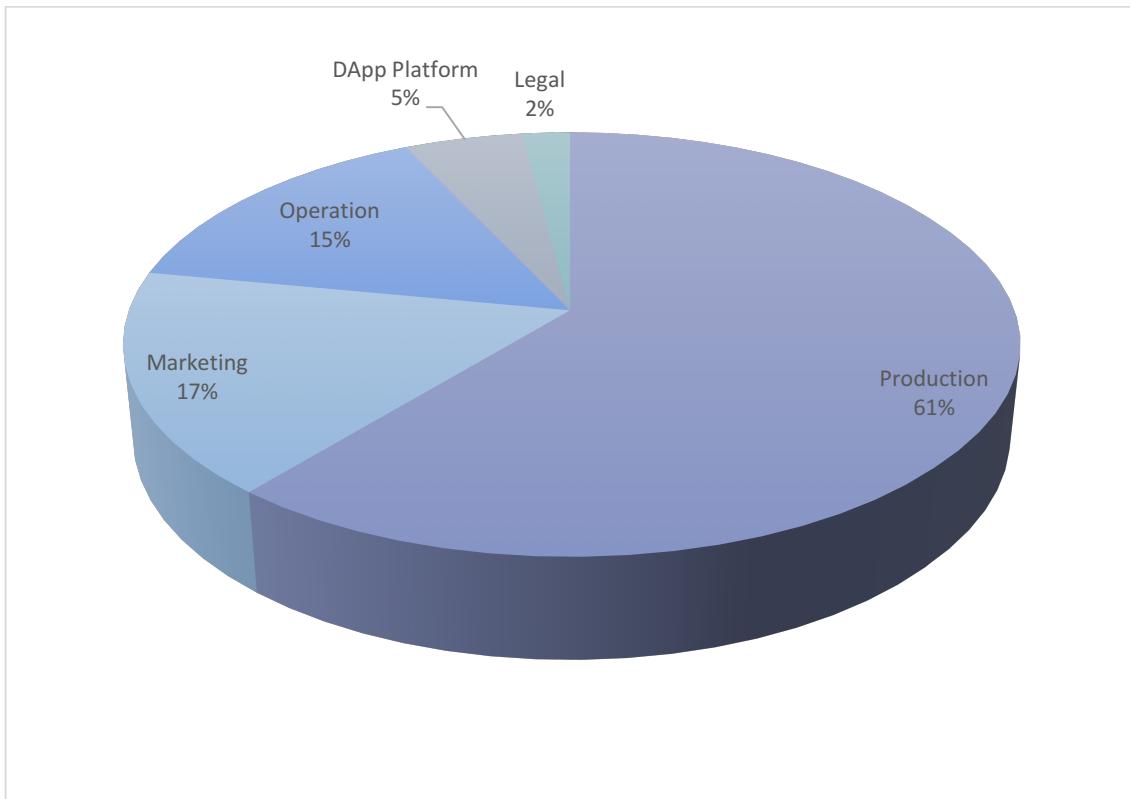


FIGURE 10 - DISTRIBUTION OF FUNDS

The funds raised in the token sale will be mainly used for development of the platform (61 % production + 5 % DApp platform). Marketing cost will make up an estimated 17 % of fund usage. Daily operation and legal costs are estimated at 15 % and 2 % respectively.

TEAM

The Clicktool team is a multi-disciplinary team of specialist, carefully chosen to fulfill the different needs of each aspect of the project from accounting and marketing to technical expertise.

The following are the current team members:

Carlos Cruz - CEO

<https://www.linkedin.com/in/carlos-cruz-3a98ba100/>



Building his first million-dollar company at the age of 19, Carlos has shown a natural ability to build organizations that deliver value to both customers and investors. With a strong passion for online marketing, his vision is to create a product that exceeds every customer expectation in utility, ease of use and security. His goal is to make Clicktool a must-have tool in every online marketer's arsenal; one that helps them increase revenue and profitability with every click they receive to their sites.

Blake Corbin - Accountant

<https://www.linkedin.com/in/blakedcorbin/>



Having been responsible for taking a marketing company from 10 Million to \$100 million in revenue, Blake has invaluable experience building quality organizations and putting together great teams. He is in charge of making sure everything runs smoothly on Clicktool's operating side.

Irina Cruz Mamneva - Financial Advisor

<https://www.linkedin.com/in/irina-mamneva-1536116b/>



Our Financial Advisor Irina Cruz is backed with over 10 years of experience in a variety of industries and a bachelor's Degree in Financial Management and Executive Coaching. She is responsible for the financial health of our company, analysing markets for investment and growth opportunities, and setting goals for long-term financial plan.

Voranon Chumnansiri - Senior Blockchain Lead Developer

<https://www.linkedin.com/in/voranon-chumnansiri-77030798/>



With over 2 decades of software development experience and master's degree in major of Electrical engineering, this veteran techie is our Blockchain Developer who oversees all of the blockchain and ICO related projects and ensures cohesion among all aspects of our technology.

Bryant Higa - Marketing Executive

<https://www.linkedin.com/in/bryant-h-5691947a/>



Through his marketing experience, Bryant Higa will showcase the company in the finest way possible, all while curating the process of an idea into the palm of your hand with a single click.

Calista Sin - Marketing Executive

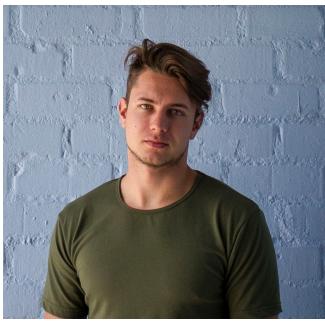
<https://www.linkedin.com/in/calistasin/>



Calista Sin is another important member of our advertising team. Using her background in graphic design, she creates eye-catching posts to attract new customers to our products.

Vlad Yurov - Social Media Buyer

<https://www.linkedin.com/in/vladyyurov/>



Vlad Yurov is our social media buyer. In addition to running successful Crypto campaigns, he is responsible for making attractive and creative content that gets remarkable results.

Yu-Jen Su - Fullstack Developer

<https://www.linkedin.com/in/jamie3160003/>



Coming from a background in engineering, our Fullstack Developer Yu-Jen Su created and launched the beta version of our marketing tracker application.

Charlie Merrill - Frontend Developer

<https://www.linkedin.com/in/charlie-merrill-428487b5/>



With international experience from working across 4 continents, Charlie Merrill is our Frontend Developer in charge of creating visually stunning webpages and ensuring the compatibility of all designs.

Chris Kendrick - Fullstack Developer

<https://www.linkedin.com/in/chriskendrick25>



Chris is a software developer that brings over 10 years of coding to Clicktool.

Stellalyn Cammie Njue - Executive Assistant

<http://linkedin.com/in/stellalyn-njue-2559368b>



Stellalyn is the Executive Assistant and Director of Company Culture at Clicktool. She acts as the organizational backbone to make sure there is seamless communication between our clients and the team. She helps maintain an up-to-date schedule and manages the office culture and morale.

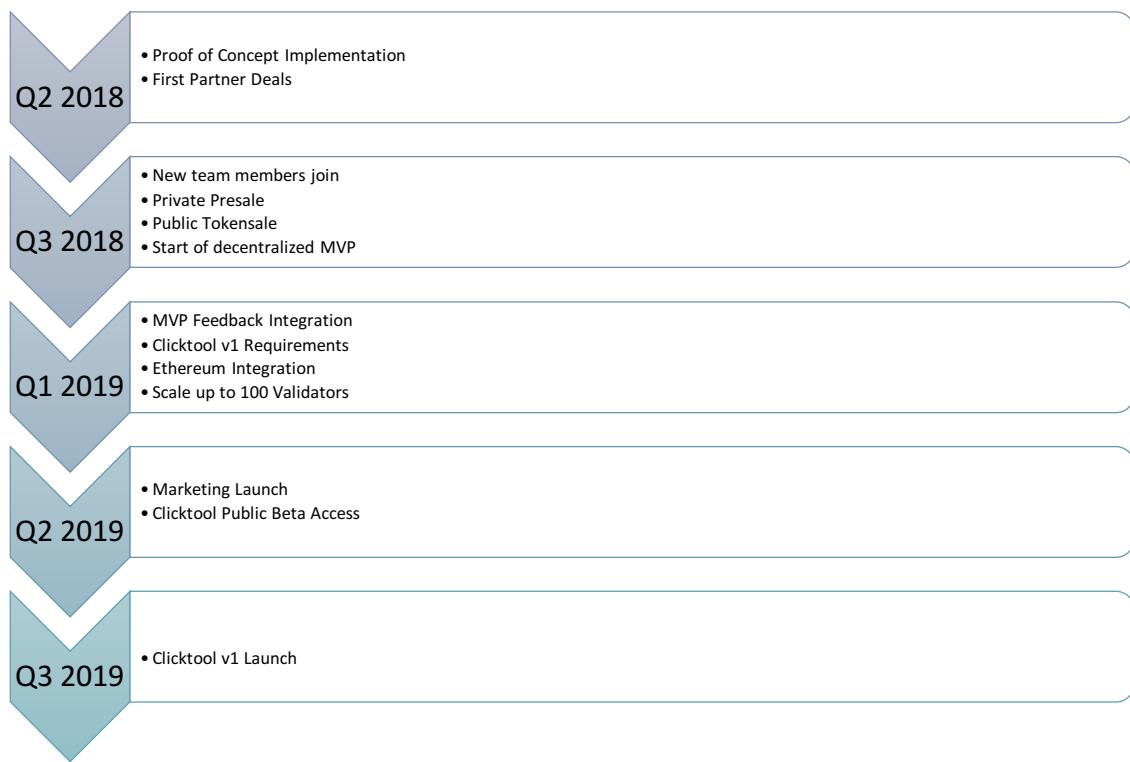
David Sarkisyan - Marketing Executive

<https://www.linkedin.com/in/david-sarkisyan-49aa8b164/>



With expert level knowledge of business analytics, affiliate marketing and the latest blockchain trends, David Sarkisyan is one of our marketing team's most vital assets. He creates advertising content that is both memorable and effective.

ROADMAP



The Clicktool project will hold private and public funding rounds in 2018. Development of a proof of concept has already started and is available to selected beta users. Furthermore, partner deals have already been made.

In Q1 of 2019 the tool will release the first full version of the Clicktook platform. The in-platform token utility will go live. Users will already have access to full analytics data for their services.

In Q2 we will enable the transparent decentralized storage features to provide transparent analytics data to willing beta testers.

Migration of users to decentralized storage will continue throughout this year, until the full version 2 release is made publicly accessible.

Finally, users will be able run Clicktool nodes, participating in the storage blockchain consensus mechanism, earning ClickCoin tokens in the process.