

Blockchain Revolution in Digital Display Advertising

# **Table of Contents**

Abstract	3
Introduction Growth of the Internet	4
Why Is There A Need for Online Marketing?	5
Overview of Existing Online Market  What Is The Current Online Market Structure?  What Is The Reason for Popularity of Ad Networks?  What Are The Issues With The Existing Market Structure?  Why Should Businesses Change Their Revenue Model From Time To Time?	6 6 6 7 8
Our Vision  How Will The Use Of Blockchain Technology Be Beneficial?	9 9
Business Cases  Problem 1: Unjustifiable Rate of Commission  Problem 2: Lack of Freedom of Negotiation  Problem 3: Irrelevant Advertisements	11 11 11 12
Statistics and Analysis  Time Spent Watching Television VS Using Internet Advertising Revenue Share (in percentage) Global Advertising Spending (in billion \$) Advertising Revenue of Ad Networks Share of Companies in Digital Ad Revenues (2016)	13 13 13 14 15
Competitive Environment Traditional Advertising Network (like Facebook and Google)	17 17
The AdSigma Token (ADSi)  Rapidly Growing Digital Advertising Market  Creating Value for Advertisers and Publishers  Technical Implementation  Ownership Rights & Using Tokens  Ownership Access Rights  Bancor as a Token Platform	18 18 19 19 19
The AdSigma Implementation  Campaign Management & Bidding Process  Interaction between advertisers and relayers  0x protocol  Relayers  Ad Serving & Ad Rendering	21 23 23 23 23 24

AdSigma SDK	24
Ad Serving	24
Ad Rendering	24
Payment	24
Blockchain = Transparency	24
Token Distribution	26
Technical Aspects	26
Conditions and steps of the ICO campaign:	27
Application of funds	27
The Team of AdSigma	28
Terms of Use and Risk Factors	30
An ADSi Token Is Not A Share of The Company	30
Technological Limitations	30
Price Volatility	30
Laws and Regulations	31
Disclosure of Personal Data	31
Mismatch of Expectations	31
References	32

Please read the information contained in this Whitepaper carefully and pay special attention to the "Terms of Use and Risk Factors" section. If you have any doubts as to what actions you should take, we recommend you to consult your financial, legal, tax or other professional advisor(s).

This Whitepaper is intended for informational purposes only and does not imply any elements of contractual or legally binding relationship. The primary purpose of the Whitepaper is to present our company's project and to provide important information to potential holders of ADSi tokens. This will facilitate the decision-making process regarding further association with AdSigma and the ADSi tokens offering with the aim of their possible acquisition.

# **Abstract**

AdSigma is the next generation Digital Display Advertising platform that is carefully driving blockchain technology to revolutionize the digital display advertising space.

We aim to disrupt the existing digital advertising space and address the significant problems it faces, such as unreasonable commission, lack of negotiation power and a shortage of choice for the publishers and advertisers. In an industry where Ad Networks are having revenue of over \$200 billion, we recognize the need to provide an alternative platform which works in favor of the advertisers and the publishers with ZERO fee.

All the ADSi token holders shall experience quality service and will be benefited from the various perquisites of holding our token. We firmly believe in the idea and have confidence in our vision. With our team members stemming from diverse fields like finance, software development, digital advertising and blockchain/cryptography, we have achieved a competitive market position, and we are already set on a path of converting our vision into reality.

**Note**: The text of this Whitepaper (in the English language) takes precedence as the main official source of information about AdSigma services and ADSi tokens. Translation of the Whitepaper into other languages is provided for informational purposes only.

# Introduction

Post introduction of the internet, digitization has affected almost everything and everyone in a manner that has revolutionized the market structure. The traditional market structure is no more an option to lead any business.

The traditional markets are:

- Restricted in terms of their duration in work and also place
- Catering to a limited clientele
- Offering an insufficient variety
- Failing to create a stronger brand image.

Overcoming the above concerns, the internet has let everyone to cross the traditional barriers and to step forward towards globalization.

#### Growth of the Internet

There were over 3.2 billion users who had access to the internet in 2015, which is very high as compared to 738 million users in 2000, as per ITU. In 104 countries, more than 80% of the youth population is online. In developed countries, 94% of young people aged 15-24 use the Internet<sup>[2]</sup>. Owing to the online presence of the people at large and aforementioned limitations of traditional markets, over the last two decades, we have seen a shift of businesses from physical markets to digital markets. Marketers have shifted to internet-based platforms to pitch their product/service.

#### **Businesses Going Online**

The offline businesses make excessive investment in expensive retail spaces. As a result, the operating costs are on the higher side for an offline business. The online business of any venture is a low-cost structure.

By shifting their business online, big companies benefit from managing 3 major activities:

- Inventory control
- Payroll
- Finance.

Small businesses can reach a worldwide audience through simple e-commerce websites. An online venture offers convenience to customers, who can browse product reviews and place orders at their leisure.

# Why Is There A Need for Online Marketing?

People are rapidly adopting an online ad revenue based model to run their businesses. Having merely an online presence isn't enough for a business to leverage the advantages of internet. In order to reach a mass audience and to achieve the business goals, it is essential to take adequate marketing decisions which best suits the organization and is further based on accurate statistical criteria. Selection of the most suitable marketing channel is a multi-dimensional aspect.

There are various influencers to the decision, some of the most effective are:

- Demographic factors,
- Geographical factors,
- Cost of advertisement,
- Turnover rate,
- Bounce rate.

As per SmartInsights.com, E-commerce is growing by 23% percent each year; 53% of marketers say blog content creation is their top inbound marketing priority.

As per emarketer.com, internet advertising revenues surpassed TV ad revenues in 2017<sup>[3]</sup> and alone in the United States, internet advertising revenues totaled \$83.0 billion, a 14% rise from the previous year. The increasing craze for the internet-based advertisements pose an attractive opportunity for the publishers.

# Overview of Existing Online Market

#### What is the Current Online Market Structure?

The most popular structure of the online marketing involves three parties:

- Publisher
- Advertiser
- Ad network

A publisher integrates advertisements into his online content. He gets paid for selling ad space or for showcasing the content of the advertiser on his own website/app along with his own content.

An advertiser is the one who provides the advertisements to be displayed alongside the publisher's content via an ad network.

An advertising network helps generate and place the ad copy, delivers the ad and tracks the statistics.

However, the involvement of a third party, i.e., an ad network is optional, and the publisher can opt to manage to publish the advertisement, which is to be displayed along with his content himself.

## What Is The Reason for Popularity of Ad Networks?

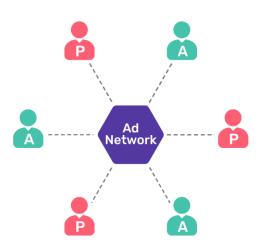
The popularity of ad networks in digital display advertising platforms is because of the following reasons:

- The ad network acts as a middleman and verifies the credibility of the publisher and advertiser for one another.
- It is responsible for the payment collection from the advertiser. Even in case of a default from the advertiser, the publisher is entitled to the payment from the ad network.
- It verifies the content and ensures that a right advertisement is displayed at the right place and to the right person.
- It has a broader reach to the potential customers for a publisher as compared to the reach of the publisher himself. This helps the ad network to fetch a better deal.

## What are the Issues With The Existing Market Structure?

- **Commission**: The advertising network charges a very handsome commission to the publishers for providing these middlemen services. Did you know? The most popular advertising network, Google, charges a commission of 32% for online content marketing, whereas Facebook charges whooping 45% commission. Along with the high commission, the ad networks place some pricing restrictions.
- **Direct Communication**: Due to the presence of a middleman, there is no direct communication between a publisher and an advertiser, and hence they cannot negotiate with each other for the desired price.
- Choose Advertiser: Some of the ad networks give the option to select the type or
  category of the advertisement that a publisher wants to be displayed on his website.
  However, one cannot choose the advertiser he desires. An advertising network is solely
  responsible for the selection of an appropriate advertiser and advertising for the
  publisher's ad space.
- Payment: An advertiser pays the fee to the ad network, which after cutting its
  commission passes it on to the publisher. Often, there is no payment flexibility to the
  advertiser. Also, there is a minimum withdrawal limit for the publishers, due to which,
  he cannot withdraw the funds instantly.

All of the above points can put high-quality creators at a financial disadvantage and favor publishers of cheap media: fake news, propaganda and conspiracy theories, quickly re-written stories with sensationalistic spin, shady offshore content farms, algorithmically generated content, and pirated videos.



Hence, to attain the maximum benefits of the online marketing and to avoid the loss of revenue in the hands of the ad networks, in the form of commission, the publisher must have an option to sell the ad space directly to the advertiser.

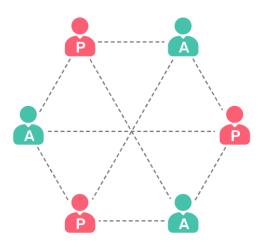
### Why Should Businesses Change Their Revenue Model From Time To Time?

For any business to survive, there is a need for continuous and comprehensive evaluation of the model, activities, and results; and over time it needs to grow more and more favorable towards both - the consumers and the organization. Therefore, the revenue model may need to change on a timely basis to benefit them to the most. With the development of technology, we at times see some drastic transformation in the way a business runs and there takes place some major shifts from the traditional methodologies.

Due to the unjustifiable higher commission rates, the absence of flexibility in price quotation, lack of ability of negotiation between the publisher and the advertiser, delay in receipts due to the minimum withdrawal limit clause and various other reasons as explained above, there is a need as well as a scope of improvement in this business model.

# **Our Vision**

We, at AdSigma, aim to restructure the existing arrangement in business model by removing the need for the middleman that exists in the form of ad networks, and help the publishers and advertisers to get the best out of online advertisements. We want to provide the benefit that publishers and advertisers receive from the ad networks but without making them pay for it and to let them relish the privileges of a B2B model alongside.



## How will the Use Of Blockchain Technology be Beneficial?

To achieve our goal, we will be using the blockchain technology, which is one of the most appreciated technologies in recent times. The blockchain is distributed ledger system that can efficiently record a transaction between two parties.

Blockchain is best known for the quality deliverance of A-I-V:

- Authenticity
- Irreversibility
- Validity earmarks tagged to a transaction

We can use this technology to fulfill our vision of establishing a direct contract between the advertiser and publisher. While blockchain will ensure a secure transaction between the parties, we will ensure the credibility of the advertisement and make sure that an appropriate advertisement is displayed on the publisher's property. We will eliminate any ad content that does not comply with the standards. Since the contract will be entered on blockchain and the consideration will be a cryptocurrency, i.e., ADSi tokens, there is no chance of default from the

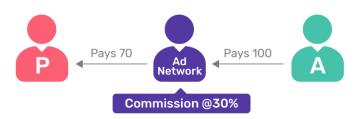
advertiser, and since there is a proof of a valid transaction entered between the two parties, the publisher is entitled to receive ADSi tokens for showing the ad. With time, we will be able to expand to a broader audience, and we can ensure a better deal for both the parties.

As we believe in the power of open-source projects, we want to help this economy to operate on its own without any intervention of Ad Networks and eventually at ZERO commission fee. Hence, a publisher gets to keep 100% of the ad revenue. The cost of an advertisement will reduce for the advertiser as well. Further, they can develop relations and enter into more contracts in future. The publisher has an advantage of not only selecting the ad he wants to be displayed but also selecting a suitable advertiser.

# Current Problems and the Solution

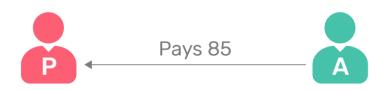
# Problem 1: Unjustifiable Rate of Commission

**Problem**: Advertising networks like Google and Facebook charge an exorbitant commission to the publishers. With over 30% commission rate, Google and Facebook combined had ad revenue of over \$100 billion in 2017. With the whole ad network industry earning over \$200 billion per annum<sup>[1]</sup>, there is a need to revolutionize the business model.



**Solution**: We are building an Ethereum based platform wherein we will eliminate the need for the advertising networks. We will provide a system where the advertisers and the publishers can directly communicate. Relaying fees will be discovered automatically by the market forces and publisher will get to keep higher margins on the fee charged to the advertiser.

The advertisers shall be themselves benefited with a lower fee as the publishers get to keep higher margins. AdSigma will be issuing tokens named ADSi. All the token-holders will be part of our community and shall be able to experience our superior quality of service.



## Problem 2: Lack of Freedom of Negotiation

**Problem:** Due to the presence of advertising networks as a middleman, the advertisers and the publishers do not experience the freedom of negotiation. There is no real direct communication between the two parties. Also, majorly, advertising networks frame and control the pricing policies, to which the advertisers, as well as the publishers, are compelled to agree. There is no transparency with regards to the bidding procedure. The real-time bidding platforms offer no information about the bids, but just the bid amount.

**Solution**: On our platform, the publishers will have the liberty of choosing their own pricing policy and shall not be restricted/interfered by any middleman. Also, the advertisers would be able to negotiate on prices and terms of service.

#### Problem 3: Irrelevant Advertisements

**Problem:** Many at times, advertisements are displayed at places where they are not much effective or are irrelevant. Moreover, some advertisements don't meet the standards of the publishers' webpage/website. It is essential for both, the advertisers and the publishers that a relevant ad is displayed at a right place.

**Solution**: The AdSigma protocol incentivizes better matchmaking process by analyzing the content of publishers and advertisers. This enables advertisers to reach out to an audience which matters to him.

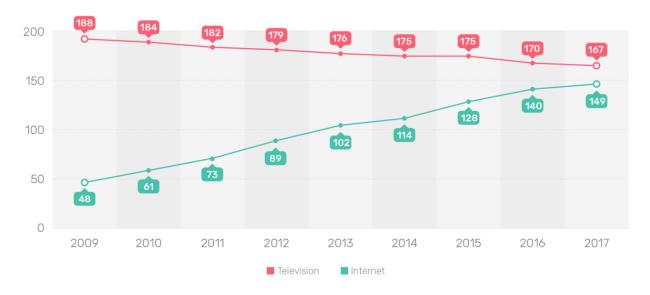
# **Statistics and Analysis**

# Time Spent Watching Television VS Using Internet

On an average, a person spends over 7.5 hours watching, streaming, listening or consuming media<sup>[4]</sup>. Out of this, majorly, people spend their time either on television or internet. Television has held its number one position for several years.

But, internet consumption is rising sharply. The daily consumption gap between TV and internet, which was 140 minutes in 2009<sup>[4]</sup>, has shrunk significantly to just 18 minutes in 2017. The internet may overtake television in terms of daily consumption within a couple of years. This is affecting advertising trends worldwide.





# Advertising Revenue Share (in percentage)

TV advertisements had dominated the advertising industry for many years by bagging the highest share of revenue. But after the digital revolution, the viewership of television has fallen, and the world has seen the rise of the internet. Owing to the viewership, it's share in the global advertising revenue has also declined. In 2017, digital advertising revenue surpassed the television ad revenue to end its reign<sup>[3]</sup>. The digital media is expected to continue its rise against other advertising platforms.

#### Advertising revenue share (%)



# Global Advertising Spending (in billion \$)

The online advertising industry is emerging. This leads to a great opportunity for the publishers. The global advertising spends crossed USD 530 billion in 2017<sup>[5]</sup>. Seven years ago, in 2010, the spending worldwide amounted to USD 412.54 billion<sup>[5]</sup>. The growth has been steady and consistent. Also, a major trend is of shifting towards digital advertising. Paper-based advertising has seen a steep decline in recent years.

#### Global advertisement spending (in billion \$)



## Advertising Revenue of Ad Networks

In this digital era, where everything is going online, the online advertising platforms have made headway. Since past decade, the digital market has been rising steeply and steadily, and it continues to do so. The growth of the market means more options for the advertisers and more business for the publishers. The publishers must enjoy the higher profit margin, and the advertisers must be benefited with the competitive pricing.

However, the reality is divergent. Due to the presence of the advertising networks, neither the publishers get the higher margin they deserve, nor the advertisers benefit from the competitive pricing as the ad networks put certain restrictions, and do not promote direct communication between the two. With revenue crossing USD 200 billion in 2017<sup>[1]</sup>, the ad networks have maintained their upward journey concerning revenue. Within five years, starting from 2013, the revenue of the ad networks have increased by over USD 100 billion.

The reason for this is multifold. Some of the major reasons are:

- Higher commission rates,
- Dependency of advertisers and publishers on the ad networks,
- Lack of competitive alternative platforms,
- Dominance of few companies in the market.

Hence, we bring you a platform that eliminates the need for the advertising networks.

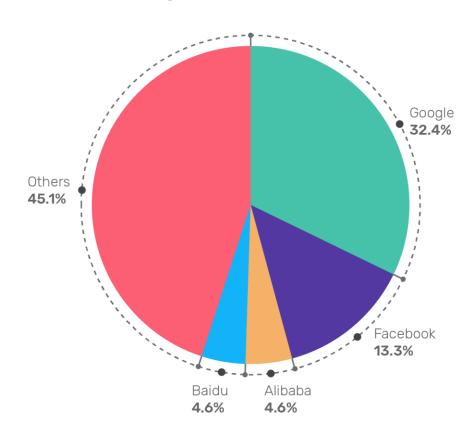
# Global Revenue of Advertising networks (in billion \$)



# Share of Companies in Digital Ad Revenues (2016)

Google and Facebook dominate the market. The share of these two giants is big already and growing consistently. The biggest share [6] of the pie is with Google, whose more than 85% income comes from the advertising revenue. They charge an exorbitant 32% commission rate to the publishers. Hence, there is a need to prevent the publishers and advertisers against the unjust deeds of the ad networks.





# **Competitive Environment**

# Traditional Advertising Network (like Facebook and Google)

Google and Facebook are the major players among the hundreds of advertising networks, and they apparently dominate the market. Both the firms have a vast database created by the information fed by the end users, which acts as a data bank for them when it comes to advertisements, and hence they attract a huge customer base.

However, here are some of the many issues posed by the traditional model of online advertising:

- Their services lack transparency;
- The real-time bidding platforms do not share the bidding information with the advertisers;
- The ad networks tend to charge an unreasonably high commission to the publishers;
- There are clear chances of ad frauds like dummy clicks on the ad links.

# **Decentralized Advertising Network**

Just like AdSigma, some other similar projects related to 'advertising with smart contracts' have been announced recently. Brave Software's Basic Attention Token (BAT), AdEx, NASDAQ's NYIAX, qChain, adChain - are examples to name some.

The blockchain technology is very new and unexplored. Various applications of the technology are yet to be discovered. Hence, there is enormous scope for innovation. Our team of experts makes us stand in the competitive scenario. All the competitors in the decentralized platform will be able to learn from the other and shall grow together as an industry aimed towards benefitting the advertisers and publishers.

Furthermore, the competition will make us push harder to achieve our goal and be consistent on our path. One definite advantage of the competition is to the customers. Due to competition, the publishers and the advertisers will always be having an alternative, and this will lead to an augmented level of service.

ADSi tokens will give power in the hands of its holders, to gain the benefit of a superior quality of service offered by AdSigma platform.

# The AdSigma Token (ADSi)

The AdSigma Token (ADSi) is a utility token which can be used to buy digital display advertisement on web/app properties, and publishers can monetize their apps/websites using AdSigma platform (They get paid in ADSi tokens).

The platform is based on the Ethereum's Smart Contracts, which guarantee secure transactions based on the parameters set by the participants (Advertisers and Publishers) themselves.

The Blockchain technology ensures that one entity alone can't control the platform. This decentralized system prevents the possibility of any data manipulation and ensures that nobody can interfere with transactions or give preferences or privileges to one advertiser or publisher over another. The network is verified and maintained by each participant and by all participants together.

#### Rapidly Growing Digital Advertising Market

Earlier we mentioned the size and growth potential of the digital advertising market. In the section labeled "Business Case" we stated that the digital advertising revenues for Google and Facebook combined, topped \$100 billion in 2017 and is further growing consistently. ADSi is based on the thriving Digital Advertising Market, and this market will continue to grow in size, resulting in a surge in the value of ADSi. ADSi's value will be based on the digital advertising market and the activity within the network. This gives ADSi the potential to become one of the strongest virtual tokens within the Ethereum ecosystem, as it will not be affected by any outside and local regulatory factors in the different global economies.

# Creating Value for Advertisers and Publishers

A business that helps other businesses to grow perform distinctively in the market. Take an example of Uber; they helped car drivers to earn huge revenues by connecting them to the customers via their application, and consequently Uber established a billion-dollar company without actually owning those cars. Same way, if publishers get well paid for their efforts of content creation, they will have the financial freedom to create even better quality content without worrying about high network fees, and as a result, AdSigma will develop eventually.

ADSi values those publishers who focus on the quality of their content, as they represent a customer-centered community. Our network will change the mindset of publishers who will now see the blockchain based ad network as a valuable asset that can generate huge revenues.

# **Technical Aspects of ADSi**

# **Technical Implementation**

The AdSigma Token is implemented as an ERC20-compatible token over the public Ethereum Blockchain. Ethereum is the natural fit for AdSigma as it is quickly becoming the industry-standard for issuing custom digital assets. Compatibility with the ERC20 standard leverages the rich existing infrastructure of the Ethereum ecosystem such as development tools, wallets and exchanges. The ability to program trustless smart contracts over Ethereum with a Turing-complete language allows for robust and secure customization of the cryptocurrency to the domain-specific requirements of the AdSigma network in a fully decentralized manner.

## **Ownership Rights & Using Tokens**

Each ADSi represents the ability to purchase digital display ads. ADSi will be used in the AdSigma Platform for the following:

- Buying and selling digital display ads
- Paying fees to Ethereum
- Paying fees to platform operators (Relayers)
- Paying for future services and functions produced by AdSigma.

# **Ownership Access Rights**

An individual may purchase ADSi for the use of purchasing digital display ads through the AdSigma Platform. If an individual no longer wants to use ADSi they may sell, transfer or trade their tokens via an independent cryptocurrency exchange. Purchasing ADSi does not entitle users to own shares in AdSigma.

#### Bancor as a Token Platform

ADSi will be implemented as a Smart Token, which uses the Bancor Protocol<sup>[9]</sup> to maintain liquidity. Bancor is an ERC20-compatible token template, which offers continuous liquidity via an on-chain market maker. The Bancor Smart Contract holds a reserve of another currency (BNT) of the ADSi market cap and determines an appropriate exchange rate between BNT and ADSi in such way that assures the BNT reserve. Individuals wishing to buy or sell ADSi buy from or sell to the market maker at the current price. The market maker can always act as the counterparty to such trade, as it holds a BNT reserve with which it can buy ADSi, and it has the sole permission to create ADSi which it can sell.

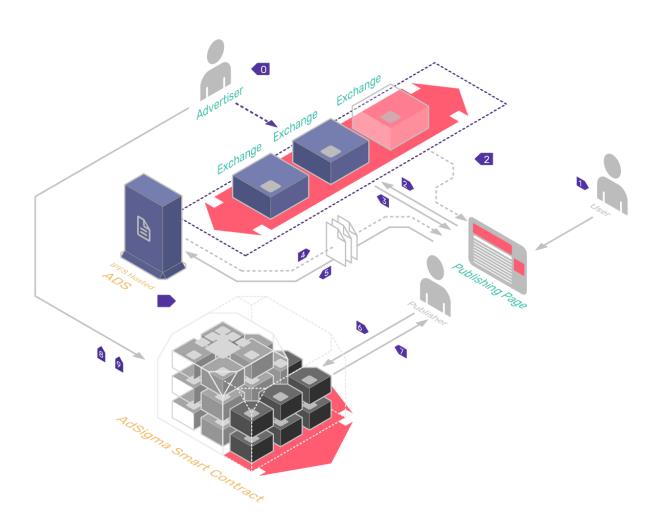
Some of the special properties of such a token are:

- Anyone can buy or sell ADSi at any time, without risk of not having a counterparty, and at a predetermined cost (even "slippage" - exchange rate changes during the trade - can be calculated in advance).
- The core value of an ADSi unit is backed by its BNT reserve, assuring holders that the token has intrinsic value.
- BNT itself is a smart token backed by ETH, making the conversion to and from ETH a simple two-step function.

More information about Bancor can be found on Bancor's website and the Bancor white paper. Our data shows that the AdSigma Token will enjoy sufficient liquidity and volatility from day one, eliminating the need for pegging or stabilization mechanism.

# The AdSigma Implementation

AdSigma will be built on top of the Ethereum platform in order to leverage the engagement of the community and the incredible technological advancements the Ethereum team has made so far. AdSigma will utilize the Ethereum blockchain to construct a variety of smart contracts, like escrow contracts and history contracts, to facilitate transactions within the ecosystem.



As diagrammed above, this is how a smart transaction with advertisers will be made via AdSigma:

Index	Transactional Facility
0	Advertiser signs a transaction and broadcasts it to all the relayers.
1	User visits publisher page
2 & 3	AdSigma SDK (Software Development Kit) connects to the relayers and picks up the best matching ad
4 & 5	AdSigma SDK fetches the assets from IPFS
6	Publisher writes the claim on the blockchain
7	Smart contract verifies the proof and transfers ADSi tokens to the publisher
8	Advertisers can verify the transactions and match it with their own tracking data and provide feedback and rating for the publisher

Along with smart contracts, the AdSigma ecosystem consists of three account types in the ecosystem:

- Advertisers: creates an ad campaign
- Publishers: shows relevant ads to its users and get paid
- Relayers: facilitates bidding and matches advertisers with publishers

## Campaign Management & Bidding Process

### Interaction between Advertisers and Relayers

Transparency of real-time bidding process ensures a fair commission distribution for everyone. The advent of smart contracts made it possible for two or more parties to exchange blockchain assets without the need for a trusted third party, like ad networks. Real-Time Bidding (RTB) process can be completely transparent to advertisers and publishers by implementing the exchange on the blockchain. We enable advertisers to float their requirements with a signed transaction on the exchange.

We use a scalable approach (based on 0x protocol) for building RTB exchange by delegating the matching process to third parties called relayers. Orderbook for RTB doesn't have to be maintained on the blockchain, which reduces gas costs, speeds up the bidding process and eliminates bloating on blockchain.

#### 0x protocol

0x<sup>[7]</sup> is an open protocol to operate a decentralized exchange on ethereum blockchain by offchain order relay and onchain settlement. It combines the efficiency of state channels with the near-instant settlement of on-chain order books. In this approach, cryptographically signed orders are broadcast off of the blockchain; interested counterparties may inject one or more of these orders into a smart contract to execute trades in trustless manner, directly on the blockchain. Friction costs are minimized as intent can be signaled off-chain, and transactions only occur when value is being transferred.

Ethereum's protocol upgrades from proof of work to proof of stake is expected to bring major improvement to the transaction speed of smart contracts on the blockchain. This would further improve our platform.

#### Relayers

Any third party who can host a matchmaking infrastructure can be a relayer. Relayers match publishers with advertisers and collect a fee which is open to everyone. Relayers can specify their commission openly and filter the transactions which meet their criteria. This creates an open market for relayers who are fairly incentivized and compete to provide a fast and reliable real-time bidding exchange. Relayers have an incentive to further improve the matchmaking process by analyzing the content of publishers and match the most appropriate users with the advertisers.

## Ad Serving & Ad Rendering

#### AdSigma SDK

The next phase involves building the AdSigma SDK. The SDK will have in-built mechanism to fight against publisher frauds. It will also collect content metadata from the rendered content. A lot of frauds revolve around publishers rendering fake content for bots categorizing them.

#### Ad Serving

The whole flow of ad serving is handled by ADSigma SDK. Whenever a user visits the publisher, SDK will fire an ad request to the nearest set of relayers. The request contains user and publisher attributes on which the matching will be done. Relayers maintains list of available ad units indexed on metadata. A matching ad unit will be returned to the SDK.

#### Ad Rendering

One of the aspects of bringing in transparency is to write the whole transaction on to blockchain. The ads being rendered holds the advertisers accountable and needs to be written as part of the transaction. Ad assets will be written on reliable distributed blockchain based file systems like IPFS<sup>[8]</sup>. AdSigma SDK will fetch these assets and render it to the user. It will then generate a claim containing the advertiser's signed transaction and pass it to the publisher.

### **Payment**

Publishers will write their claims on the blockchain. AdSigma smart contract will verify the claim against the advertiser and will transfer money from advertiser's wallet to publisher's wallet. This enables instant payments for the publishers. Publishers might choose to batch their claims to save on the transaction costs.

# Blockchain = Transparency

One of the major issues with the current systems is that advertisers have no way of verifying whether they are being charged for honest leads. This poses a big challenge for them as they are not able to justify the ROI. AdSigma provides complete transparency on transactions between publishers and subscribers. The blockchain is the perfect match for this. It enables maintaining an immutable distributed digital ledger of transactions.

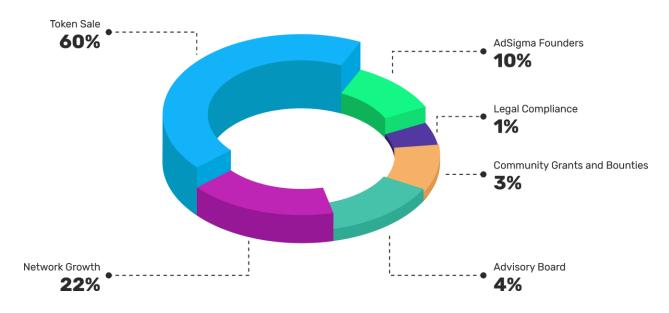
Advertisers will get a complete log of the campaign reach. He can verify the ledger data with his own attribution data. This way he can figure out publishers who are either frauds or performing poorly. Together as a group, advertisers can build a rating system for publishers. This completes the feedback loop and will weed out non-performing publishers from the system. Publishers

who are abusing the system by generating fake or irrelevant traffic will be paid less and eventually get removed from the system. This is the most important use case of blockchain for Adsigma.

# **ADSi Tokens - Initial Coin Offering**

#### **Token Distribution**

The issued ADSi tokens will be distributed in the following way:



## **Technical Aspects**

Upon finishing the ICO campaign, we are planning to issue tokens of an ERC20 standard. ADSi tokens will have the following properties within the AdSigma platform:

#### Lifetime use of AdSigma products

A token holder with 75,000 or more ADSi tokens will have access to our add-on products, (which we will be launching in future) at free of cost for an indefinite period of time during which ADSi tokens are held.

#### Voting rights for new features

ADSi token holders are eligible to vote (1 token equals 1 vote) to decide which features to be implemented to the builders of the company. In this way, thanks to blockchain, the decisions about the functional development of the product are made and executed transparently for all users of AdSigma platform. There will be an online application where all individual ADSi holders can vote for deciding the new features.

#### Paying for digital display advertisements using the AdSigma platform

The use of AdSigma platform is paid using ADSi tokens.

#### Receiving ADSi tokens in exchange for ad impressions

If you are a website or app owner with thousands of real visitors, you can monetize that traffic using AdSigma and earn ADSi tokens.

## Conditions and steps of the ICO campaign:

ADSi ICO is going to be held in two major steps:

- The Presale [Dates will be mentioned on our website https://adsigma.io]
- Crowdsale [Dates will be mentioned on our website https://adsigma.io]

Tokens that won't be sold during the ICO will be placed into the reserve fund of the project (among other things, in order to encourage data contribution and make payouts to the contributors).

Potential buyers will be notified of the current special conditions for purchasing ADSi tokens through one of the methods available to AdSigma.

## Application of funds

Following product development options are possible depending upon the funds raised during the ICO.

- Funds Raised Under 2,850 ETH [Softcap]: If the Soft Cap isn't reached, all funds will be
  forwarded back to ICO participants. Funds raised during the presale won't be returned.
  However, the presale participants will receive ADSi tokens that will give them the right
  for the lifetime use of Adsigma services.
- 2. **Funds Raised Over 19,000 ETH [Hardcap]**: Will be forwarded to build AdSigma product, that allows advertisers to run digital display advertising campaigns and publishers can monetize their app/website by using this product.

# The Team of AdSigma

#### Suumit Shah

Suumit is the Founder and Head of three successful technology companies within web design and digital marketing industries. Suumit's most recent venture, Grappr, is an Android app platform with a network of more than 1.2M users in less than a year. Suumit specializes in building tech products from ground up and constantly working on a solutions that will make digital marketing better and simpler for all.

#### Ravi Tamada

Ravi is a lead developer with a meritorious experience spanning across mobile/web development, SEO services, digital transformation, social media marketing, cloud computing services. Authored and actively running one of the top Android development blogs across the globe named: "Androidhive" with a monthly viewer base of 2M+. He has also won Gold & Silver awards for Google Glass innovation.

#### **Akshay Mohite**

Akshay is a rails enthusiast, developing some awesome web and mobile-based products. He previously worked with companies like Big Binary, Fab.com and Hem.com as a full stack developer. He worked on ReactJS for more than a year and has a good understanding of frontend technology and frameworks like JavaScript, jQuery, Angular.

### Vivek Sancheti

Vivek is a product development guy who successfully delivered amazing projects to professionally diverse clients across the globe. His recent project, Cryptoground - Trade Simulator of various cryptocurrencies received 100k users within one month of launch. He understands the current problems in digital marketing niche and constantly keeps trying to find solutions for these problems.

# Kapil Bhosale

Kapil has years of experience in software development. He worked mostly on Web app developments with Ruby on Rails. Along with that, he worked in areas of image processing, distributed and parallel computing. Kapil previously handled few big development projects for companies like Fab.com and TIBCO.

#### **Ashutosh Bhatt**

Ashutosh is a business development and marketing head of Risemetric. He has 5+ years of experience in Digital Marketing. Having worked with 25+ funded startups across the globe to scale their userbase, he understands the in-and-out of Digital Marketing. He excels at quickly understanding new technologies and explaining their functionality to the general public.

# **Subhash Choudhary**

Subhash is a founder of Risemetric, a successful digital marketing agency based out of Mumbai, India. He is currently helping companies like Sony, McDonalds, Viacom18 to scale their user acquisition channels via Digital Marketing activities. His marketing experience combined with drive for the perfection make him an integral part of the marketing team.

# Terms of Use and Risk Factors

Each potential holder of ADSi token(s) is recommended to have read this whitepaper, ICO documents and all other relevant information available from the alternative sources before the acquisition of tokens and they are expected to understand that acquisition of ADSi tokens involves a high degree of risks. Given below are some of the terms of use and risk factors involved with the ADSi tokens; however, the list is not exhaustive and the risks are not limited to it.

## An ADSi Token Is Not A Share of The Company

The ADSi tokens are not shares to the company. By no means, token holders have any right to assets, profits, dividends, or the right to manage the company. The company may consider the feedback and suggestions of the token holders; however, that does not indicate or hint any sort decision making power in the hands of a token holder.

ADSi tokens are solely meant for the purpose(s) as expressly stated in the whitepaper and shall not be misunderstood and shall not be used for any other purpose including investment, speculative and other financial purposes. Also, the tokens may not be recognized by other platforms and may not have any value other than on our platform.

# **Technological Limitations**

We heavily base our dependence on software and hardware technologies. Technology is prone to various errors and risks. We strive to ensure the provision of the highest level of assistance to the members and to ensure that our services are live all the time, however, due to certain limitations and drawbacks of the technologies we cannot guarantee the same. Errors, defects, power interruptions, malware adversaries, malicious programs, viruses, cyber-attacks, malfunctions, etc. may lead to certain barriers against our aim of providing a superior quality of service.

Furthermore, the technologies which are used alongside the blockchain technology are new and currently in the development stage. Hence, they may be vulnerable and have certain disadvantages. Our team is consistently monitoring the system to ensure to the best that it is safe against the errors and risks, but, we cannot guarantee it.

# **Price Volatility**

Due to its nature, the tokens are prone to price fluctuations. The value may change from time to time. The price may vary due to some market developments, news, regulations, unforeseen

or uncontrollable conditions, etc. Also, the token holders may lose their funds if the token loses its value. The sum is not insured in any way.

## **Laws and Regulations**

A person or any other body shall not buy the ADSi tokens if the law in his/its country or jurisdiction prohibits from doing so. While a majority of the countries currently do not govern the blockchain technology and related processes, some countries have taken steps to regulate its use, while some have expressly banned it. We recommend the potential buyers to kindly ensure the validity of the transaction in their respective jurisdiction before entering into one. Furthermore, the taxation matters are subject to applicable tax laws in the token holders' jurisdiction. The token holders must comply with the laws and pay taxes, as applicable.

#### Disclosure of Personal Data

We take measures to safeguard the identity of the token holders. The blockchain is infamous for the anonymity of the transactions. But at times we might be obliged by certain law, regulation or situation to disclose the identity. We are not responsible for the disclosure of token holders' personal data, financial or otherwise if required by the court of law.

### Mismatch of Expectations

The services of AdSigma are under development. There may be significant changes before or even after the release of services. The company shall not be responsible for the mismatch of token holders' expectations with our functionalities. Also, the futuristic/forward-looking statements are just to convey the company's vision, mission and intents to the potential token holders and we do not guarantee the results. Various internal and external factors influence the fulfillment of those statements.

**Note**: This whitepaper, though is relevant at the time of the framing, but the content may become irrelevant or unuseful with time. Also, the whitepaper is not an exhaustive source of information and might be missing some data. The clause and statements mentioned in this whitepaper could be changed, new points may be added, or existing points may be removed without any prior notice, at the discretion of the company.

# References

- [1] Digital advertising revenue worldwide (in billion U.S. dollars) by Statista.com
- [2] Internet users and Internet usage statistics by International Telecommunication Union (ITU)
- [3] Advertising Revenue share of different media by McKinsey Global advertising report, McKinsey & Company, Wilkofsky Gruen Associates
- [4] Average Daily TV and Internet consumption per person worldwide by Zenith via Recode, Statista.com
- [5] Global advertising spending by Statista.com
- <sup>[6]</sup> Share of different companies in digital ad revenues (2016) by eMarketer (Some figures are provided on an estimated basis in the reports)
- <sup>[7]</sup> Ox whitepaper https://Oxproject.com/pdfs/Ox white paper.pdf
- [8] IPFS a peer to peer hypermedia protocol https://ipfs.io/
- [9] Bancor network whitepaper -

https://about.bancor.network/static/bancor protocol whitepaper en.pdf

Thank You!