

INDORSE

WHITE PAPER

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Table of Contents

[Executive Summary](#)

[Chapter 1 - Overview of the Indorse Project](#)

[Taking ownership of your data](#)

[The advent of a Skills Economy](#)

[Enabling Crowd Economics 2.0](#)

[Growing the Cryptocurrency Ecosystem](#)

[How are we solving this?](#)

[Why Ethereum?](#)

[Chapter 2 - Platform Model](#)

[Core features](#)

[Example from a user's perspective](#)

[Example of a professional claim](#)

[Example of a personal claim](#)

[What happens to bad actors?](#)

[How do users receive an Indorse Score?](#)

[Core Components](#)

[Advertising](#)

[Different forms of the Indorse DAPP](#)

[Chapter 3 - Token Model](#)

[Alignment of Incentives](#)

[Tradeable Token:](#)

[Internal Accounting Tokens:](#)

[Considerations](#)

[Indorse Bucks \(BUK\) and Indorse Score \(SCR\) - Accounting Tokens](#)

[Converting Indorse Bucks \(BUK\) into IDS tokens - Vesting Periods](#)

[Indorse Bucks \(BUK\) to IDS token Conversion - Pooled Tokens](#)

[Advertising revenue with IDS tokens](#)

[IDS Inflation - Pooled Tokens](#)

[Chapter 4 - Use Cases](#)

[Companies looking to hire](#)

[KYC](#)

[Oracle for Prediction Markets](#)

[Advertising](#)

[Freelance Services](#)

[Chapter 5 - Development Roadmap](#)

[Challenges](#)

[Chapter 6 - Token Sale](#)

[Initial Token Sale - IDS](#)

[Summary](#)

[Post Token Sale - holding of the funds](#)

[Chapter 7 - Core Team and Advisors](#)

[Core Team](#)

[Advisors](#)

[Chapter 8 - Funding Usage Breakdown](#)

[Chapter 9 - Legal Implications/ risks](#)

[Disclaimer](#)

Executive Summary

'Indorse' is a revolutionary platform using new models of tokenization and decentralization to change the shape of professional social networking. Unlike traditional platforms such as LinkedIn, we aim to give back ownership of the data to the user, and allow them to profit from sharing their skills and activities on the platform.

Indorse uses internal rewards (Indorse Bucks) and a reputation system (Indorse Score) to incentivize users to add their accomplishments and endorse those of others.

With participation in the network and being more active, users are able to earn Indorse Bucks for their content and endorsing the claims of others. Advertisers in turn purchase space on the site, which creates revenue shared with the users who created the content. Users are finally able to share in the profits instead of the money going to the companies holding their data.

We envision a serverless, decentralized future, where the users will build their profiles and profit from their reputation. This future will need a decentralized platform where others can judge the quality of a person's profile not just by where they have gone to school, but what they have actually done in their professional and personal lives.

Indorse is being developed by the team at Attores, a blockchain company based in Singapore. The founders of Attores are Gaurang Torvekar, who is the CTO and David Moskowitz, who is the CEO. Although our experience with Ethereum goes back before founding Attores, we formally began working on Ethereum applications in January 2016, releasing open source code for swaps and forward contracts for exchanging digital assets. Attores currently has a pilot with a Polytechnic college in Singapore for their digital certificate issuance platform along with installation of an Ethereum blockchain on campus. Gaurang is the co-organiser of the Ethereum Singapore Meetup, while David is the co-organizer of the Bitcoin Singapore Meetup. In 2013 David founded a Bitcoin brokerage which serviced hundreds of clients in Singapore. David successfully exited that business in 2015.

This white paper outlines the motivation behind the platform, the internal mechanisms and the roadmap for the development process. Our vision is to build the infrastructure which gives every user an avenue to showcase their personal profiles, which would ultimately extend to several other projects. We believe Indorse might become the ultimate reputation system which can be the backbone of generations of future DAPPs. Join us in this ambitious project!

Chapter 1 - Overview of the Indorse Project

Taking ownership of your data

"If You're Not Paying for It, You're the Product" - Unknown

Social networks have proliferated over the last several years. They have become an integral part of our lives, to the point where they can control our actions or how we behave, as evidenced by Facebook's experiment with emotions of its users. The content that you produce is never really yours. It legally belongs to the companies and data centers which hold this data. They can monetise on this data, and profile who you are as a person, selling this data to advertising, recruiting and marketing agencies.

Technology has allowed us to share information more freely and readily with each other, but ease of use and accessibility is a double edged sword. Issues about personal privacy, data protection and ownership of information have surfaced, rightfully, over increased flows of information. These issues regarding ownership of personal information and commercialisation of such information must be fixed once and for all. This is our core focus.

The average social media user might not realise it, but social networks have value. Metcalfe's law states that the value of a network is proportional to the square of the number of its users. Our information and interactions build a profile of ourselves, and our inclinations and ability to spend, which becomes valuable to advertisers. One obvious manifestation of this is the USD 3.4 billion that Snapchat raised during its IPO despite its loss generating revenue model. The 158 million active users (and growing) of that network represented value that could be tapped by advertising.¹ In fact, Google and Amazon, some of the most ubiquitous internet platforms that we use everyday, were the earliest to tap into the information of users on their platforms.

To be clear, we are not against advertising, and we are most certainly not against social media. However, we are against profit models that do not benefit the users who actually generate the content.

The advent of a Skills Economy

Where it used to be the case that a qualification was valuable as a representation of the knowledge acquired during the period of study, this is no longer true. Today, information shifts

¹

<http://www.marketwatch.com/story/snap-ipo-six-things-we-now-know-about-snapchat-parent-company-2017-02-02>

occur with increasing frequency and rapidity. What is learnt in school could become obsolete very quickly, and it is not uncommon to find individuals employed in positions with little relation to what they had studied in college. Some of these may have been the result of consolidation of various jobs, each different in scope; others may not have existed before. The idea of school as an institution for the imparting of knowledge cannot account for these trends in the workforce.

We have also witnessed the commodification of education. While it used to be the case that higher education was the exclusive domain of a few in the past, today higher education has seen a rapid increase in the number of students, as a result of a push to make good education (and better jobs) more accessible to everyone. Institutes of higher education have proliferated, and technology has made it possible to earn a higher qualification without being physically enrolled in school. Where we are located in Singapore, the government has announced the goal of increasing the higher education participation rate to 40% of each student cohort by 2020.² Some students are lamenting their bleak employment prospects upon leaving school.³ Elsewhere in countries like China, India and South Korea, graduates are spilling out of higher education institutes in record numbers, but many are unable to find jobs after graduation.⁴ The numbers game no longer works out in favour of the many university graduates who are chasing an ever smaller pool of jobs.

What then is the value of qualifications, if not as representations of knowledge or scarcity? We believe that qualifications are representations of skills acquired. In this age of constant influx of information and knowledge, the only constant is change. That, and deep skills which allow us to ride the changes. The right skills allow us to adapt to situational and information changes quickly and flexibly; they are our means of navigating this increasingly complex world. So it seems the academics and governments are not that far off in their claims - our economy is the skills economy.

Enabling Crowd Economics 2.0

We believe that new economic models are being enabled with technologies like Ethereum. With these advances, we can enable millions of previously excluded people from participating in the next wave of economic change. Unlike past cycles where only those who owned the assets could profit from their usage, in the new decentralized model, millions and perhaps billions of people can now be direct economic beneficiaries of the businesses they are consumers of. As economic beneficiaries, the user is also more likely to utilize the service and tell others about it. This creates a virtuous cycle of growth and opportunity for all.

² <http://www.straitstimes.com/singapore/40-of-each-cohort-to-get-shot-at-local-universities>

³ <http://www.straitstimes.com/singapore/manpower/skill-gap-a-big-problem-for-fresh-grads>

⁴ <http://www.economist.com/blogs/banyan/2011/11/education-south-korea>
<http://www.bbc.com/news/business-28062071>

Growing the Cryptocurrency Ecosystem

Throughout the eventful history of the cryptocurrency market it has been rather difficult for new users to enter and access their first tokens. Typically, users must register at exchanges, clear KYC hurdles and transfer money from their bank accounts to the exchanges. This is often met with difficulties as banks have not been the most supportive institutions in the decentralization revolution.

By allowing users an easy way to earn rewards for the activities that benefit them, we are enabling a billion new people to enter as holders and users of cryptocurrencies.

How are we solving this?

Indorse is an attempt to give back ownership of data to the users. A platform which is not only fun, but also rewarding to the contributors of the content. Here, the value of the content is accrued to the users who create it. We will also design in-built mechanisms and integrations with other applications like uPort to minimize the damage caused by Sybil attacks. It will also have an in-platform currency and token system where the honest contributors will be rewarded for their contributions while the malicious actors will be penalised.

The users own their identity on the network and the assets of the network itself. The crowd economy is not only about sharing assets, it's about the crowd owning, sharing and profiting from those assets which they fund, build, use. We are giving professionals and for that matter anyone, an avenue to put up their documents and allow or not allow to advertise their personal information, with full control over their data. What's more, instead of relying on a central authority like a notary or a University to "attest" that you indeed went to this particular University, we are giving that power back to the public! It doesn't solve the problem of fraud certificates completely, but gives any credential a certain degree of validity and vote of confidence on a balance of probabilities.

This platform can be likened to a combination of a decentralized LinkedIn and Instagram, but with "verified" claims and endorsements. It has mechanisms to reward the good actors and penalise the bad ones.

Why Ethereum?

The platform needs a network effect to succeed. While existing social networks like Facebook and LinkedIn have bootstrapped the growth of their networks, new technologies like blockchain have put us in a better position to kickstart these kinds of networks. We see this as a unique opportunity to tap on the existing blockchain communities in order to create a network to begin with and incentivize the supporters themselves to use it.

Ethereum provides the much needed transparency needed for a crowd economy to succeed and incentivize its own growth. Hence we are using Ethereum as our compute engine, while using IPFS as the storage mechanism.

Chapter 2 - Platform Model

Core features

The core features of the Indorse platform will be implemented through the combination of a few technologies, which include Ethereum, IPFS/Swarm, and Whisper. We envision the Indorse platform to have a serverless, decentralized architecture, with the content and code on IPFS, while the Ethereum blockchain as the computational engine and for providing transparency.

Each user can take part through two main roles on the platform -

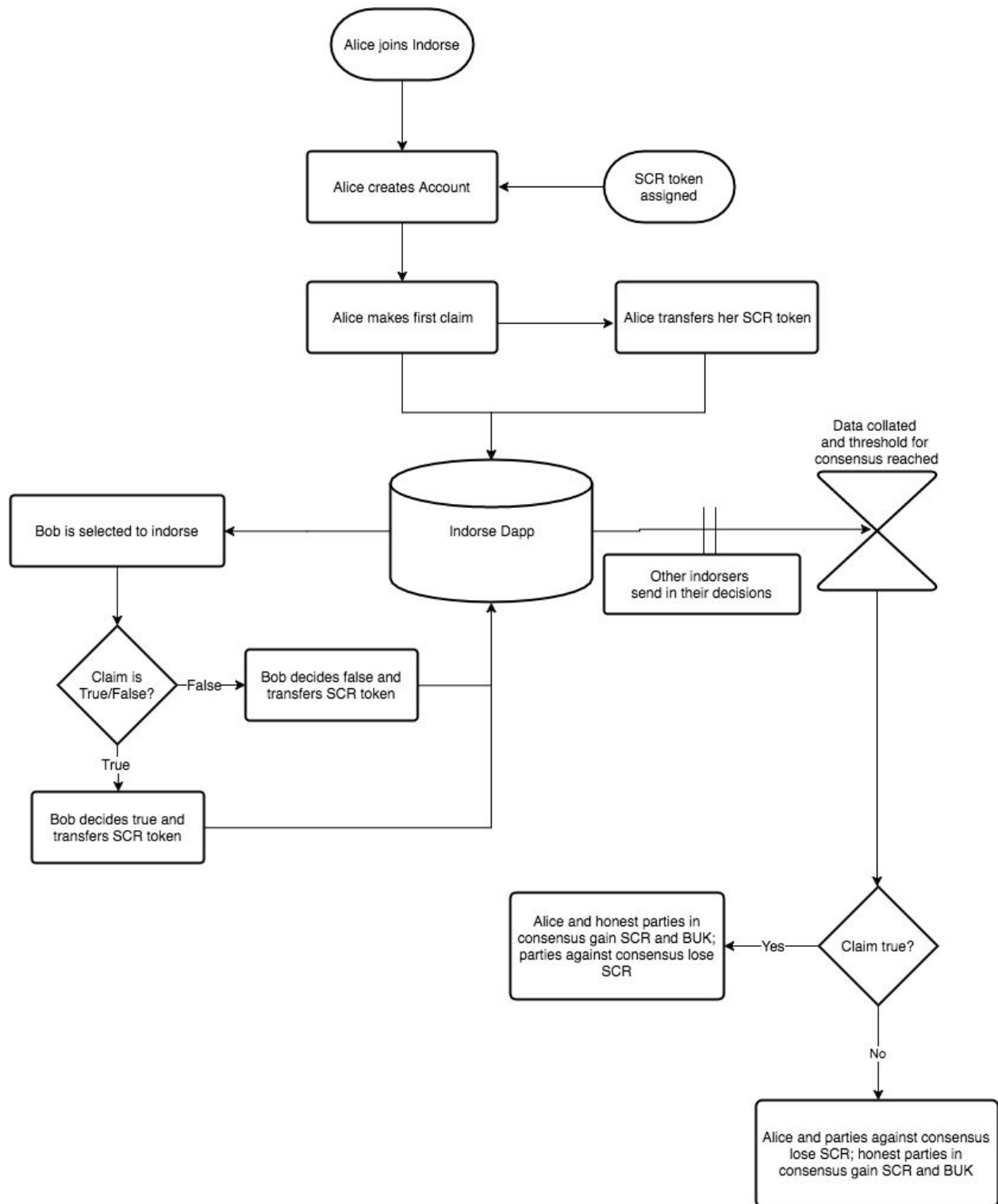
- Claimant
- Moderator

The entire process flow starts with a claimant making a “claim” associated with his profile. A “claim” can be one of two types - that of professional information (forming the core part of your profile) OR a personal claim. With every claim he makes, the claimant needs to attach one or more proofs of information. The moderators verify the claims separate from the blockchain and either endorse it or flag it.

We are using a mechanism similar to Proof of Stake, called an **Indorse Score**, wherein every claimant or moderator will stake his reputation on either the claim or endorsement. If their claim gets approved, their reputation will increase, otherwise, it will decrease.

Example from a user's perspective

- Alice joins the Indorse network. Upon registration she is issued a minimum Indorse Score (SCR token) that will enable her to post a single claim to her profile.
- She starts by creating her unique profile identity, and then adds a claim. She claims that she graduated from Ngee Ann Polytechnic in 2017 with a Specialist Diploma in IT Network Systems. She provides a link to the Ngee Ann Polytechnic verification page for her certificate information. She submits the claim with that and her Indorse Score is locked. The Indorse platform randomly chooses a number of other users who can endorse the claim.
- Bob is an Indorse user who is chosen to endorse the claim. He receives a notification and sees that Alice has placed a link to the verification page for her certificate. He verifies that the claim is valid and endorses the claim, locking up his Indorse Score.
- After a consensus of endorsement is met, Alice’s Indorse Score is increased by 1, for making a valid claim. She is also rewarded with Indorse Bucks. Bob also has his Indorse Score increased by 1 and receives an Indorse Buck.
- Six months after receiving this Indorse Buck, Alice’s Indorse Bucks are converted to IDS tokens based on the advertising pool for the period.



**This example is for illustration purposes only. The amounts of tokens and exchange rates may be subject to change upon final launch of the platform and time of conversions.*

Example of a professional claim

- A user can make a claim that he has attended a certain University or has a certain degree. The claimant will stake his reputation and lock his Indorse Score on this claim.
- Once he submits a claim, a gestation period will start, wherein the platform will send the claim to the endorsers. Suppose this gestation period is of one week, the moderators will have one week to either endorse it or flag it. The endorsers, while endorsing, will also stake their Indorse Score.
- There will be a minimum number of endorsements for every claim, which will be decided algorithmically depending on several factors like the total number of users on the platform, the total number of active users, etc.
- Since this claim is objective enough and relatively easy to verify, the honest moderators can endorse confidently. In case of a frivolous claim, a moderator flags a claim to bring down the Indorse Score of the claimant, in this case, the claimant will lose one of his points on their Indorse Score on the balance of probabilities.
- The platform will have a minimum percent of moderators to endorse a claim before it is considered to be valid. Once a claim is validated, the claimant's Indorse Score increases. Both the claimant and the moderator will receive additional Indorse Bucks for their contribution to the network, and creating more content.
- In case of a frivolous claim, the claimant does not get Indorse Bucks and his Indorse Score is reduced.

(We might give an option to users to keep "unverified" claims on their profiles. These claims won't add any Indorse Score or give them any Indorse Bucks though. But they can be used for advertising).

Example of a personal claim

- Apart from claiming educational credentials or job experiences, a user can also claim additional skills that can make his profile well-rounded. For instance, a user can claim that he can code in JavaScript, and put his Github repository as a proof. The moderators can go there, verify and thereby endorse or flag the claim.
- There might be a case, when the endorsers might be reluctant to participate in the endorsing process since they would be scared of having their Indorse Score reduced in case the claim is too subjective.
- Suppose someone claims - "I can bake a tasty cake", then there is no way in which the endorsers can honestly claim that a particular cake was indeed tasty (short of meeting the person and actually eating the cake).
- Hence, we think that they will shy away from such claims, and the claim will go unendorsed. This in turn will discourage people from submitting claims which are too subjective.

What happens to bad actors?

If a user of the network, be it a claimant or a moderator, keeps acting in a malicious manner, either by the way of frivolous claims or by endorsing or flagging in a dishonest way, their Indorse Score will be reduced, thus reaching a minimum score on the platform. This user will only be eligible to earn back his Indorse Score by making 'correct' endorsements, beginning with one at a time, for a period of time.

How do users receive an Indorse Score?

The early supporters in the token sale will receive SCR tokens used for the Indorse Score along with IDS tokens. New users to the platform will start with a minimum Indorse Score, which allows them to endorse only one claim at a time. The users have to do some work and contribute to the platform to earn both, a higher Indorse Score and Indorse Bucks.

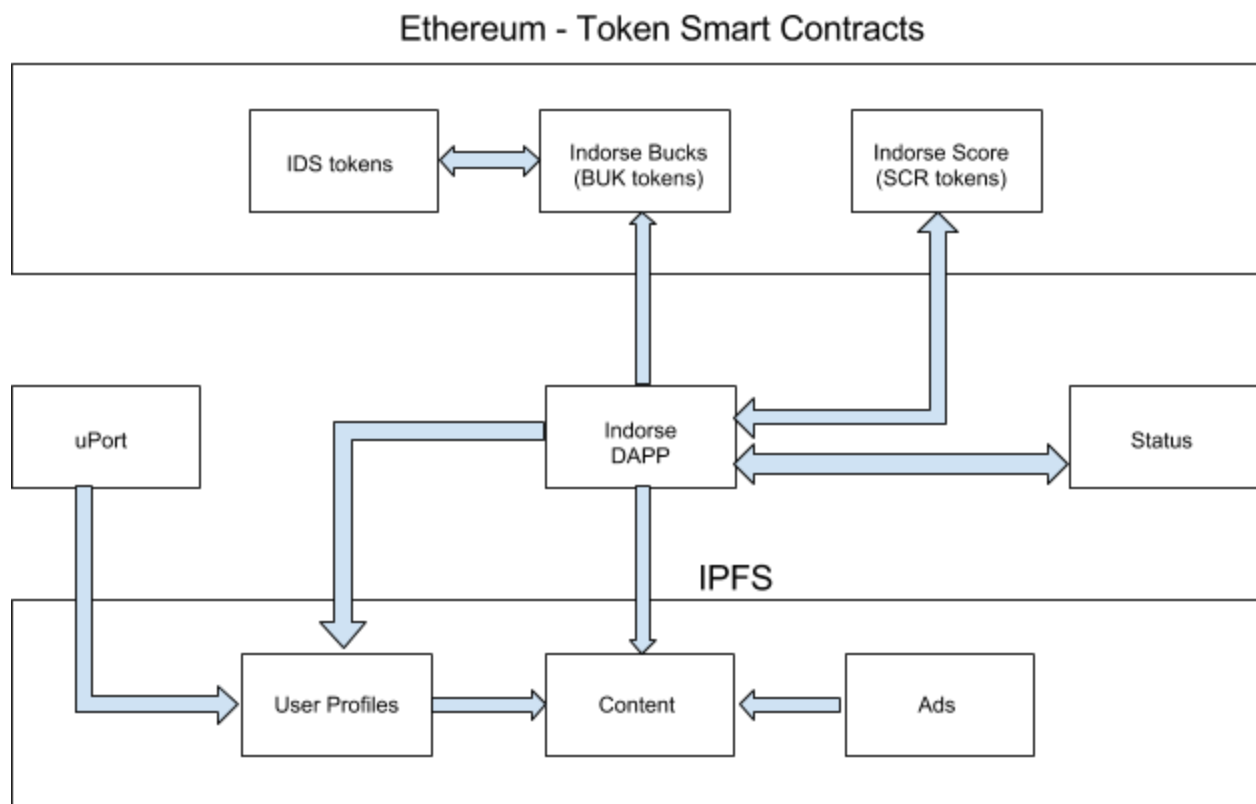
In the future, if a user adds a certificate or a credential from a reputed University directly on the blockchain, then he will be eligible for a much higher Indorse Score. For example a PhD from MIT which has been issued using Blockcerts or a Diploma from Ngee Ann Polytechnic issued using Attores CI platform, since these are cryptographically provable issuances.

Core Components

The platform will be integrated with the following third-party (D)apps

- **Indorse DE** - Indorse will be building a deployment engine (DE) for the profiles and the content, tying them back to the tokens and the Ethereum Smart Contracts.
- **Attores Certificate Issuance (CI) Platform** - Attores has been working for more than a year on the certificate issuance platform, wherein a University or an institution can issue their degrees or diplomas directly on the blockchain in the form of a Smart Contract. We plan to open source this code and use that as one of the core modules of the Indorse platform.
- **IPFS** - Inter Planetary File System (IPFS), which is like a decentralized Dropbox is going to form the core of the Indorse platform, since most of the content, which includes the documents, the claims, the updates to your profile, the endorsements, etc are going to be stored there. With the advent of systems like Filecoin, users of IPFS get one more chance to earn revenue from their content or storage space. This is ultimately going to help proliferate the ecosystem as a whole.
- **uPort** - it is a self-sovereign identity system that allows people to identify themselves and authenticate both on and off the blockchain. The Indorse platform will be integrated with uPort so that the identity of the user on the platform can be tied back to his real identity. uPort is also useful to sign the blockchain transactions directly from a mobile phone.

- **Truffle** - it is a development environment for Ethereum Smart Contracts, which includes Smart Contract compilation, linking, deployment and binary management. This is the current state of the art for the Ethereum blockchain. We are going to use Truffle to write the Smart Contracts and integrate that with the front-end of the application.
- **Spectrum** - Spectrum is an all-in-one wallet system for Ethereum being built by Digix. The Indorse platform will integrate with that since it provides ease of use for the end users and makes their life much simpler, while also providing security for the platform developers.
- **Status** - Status is a chat application which utilizes the Whisper protocol, thus enabling complete peer to peer chatting experience. We also plan to integrate Status in one of the releases so that there can be in-platform chatting, all on the blockchain.



INDORSE PLATFORM ARCHITECTURE

Advertising

Another integral feature of the platform will be advertising. Advertisement placement and impressions will be bought by advertising agencies and marketing agencies at certain fixed rates. We will follow a model similar to Google Adwords, but with the difference that all the advertising revenue goes back to the platform! More details about how this mechanism works are discussed in the next section.

Different forms of the Indorse DAPP

While the DAPP will be in the form of a web application in the beginning, we will also be releasing it as a mobile app subsequently as part of the development milestones. You can find more information about this in the subsequent sections.

Chapter 3 - Token Model

Alignment of Incentives

In order to create a reward mechanism that fairly distributes ownership and aligns incentives of all parties the platform has **1 tradeable token and 2 internal accounting tokens** (based on ERC20 interface):

- (a) Indorse Token (IDS) [*tradeable*]
- (b) Indorse Bucks (BUK), [*accounting of earnings*] and
- (c) Indorse Score (SCR) [*accounting of reputation*]

The purpose / role of each of these tokens are as follows:

Tradeable Token:

IDS Token: The IDS token is the token that will be issued during the crowdsale. IDS tokens will be listed on exchanges and used by advertisers to purchase advertising units on the platform. Crowdsale IDS purchasers will receive Indorse Score (SCR) tokens in addition to their IDS tokens. This will enable them to indorse the profile postings of users on the platform. In this way, the IDS token holders have a vested interest in participating in the platform and endorsing viable claims.

Internal Accounting Tokens:

These tokens will for the most part not be known to the user. We present them here so that the community can understand the mechanics of the system and how we are using them for the transparency of the network.

BUK Token: BUK tokens (Indorse Bucks) are the main internal token unit on the platform and will not be transferred off platform. BUK tokens are issued upon confirmation of posts and denominated in units with two decimal places. Users can earn BUK tokens for posting content to their profile, or for successfully endorsing the profile updates of others. BUK may not be transferred between users, however this may be updated. BUK will be converted into IDS tokens after a six month vesting period. The conversion will be based on the amount of IDS in the IDS pool created by incoming advertising buys and the internal inflation rate of IDS.

SCR Token: SCR tokens (Indorse Score) are tokens that are required to post updates to the user profile, or endorse and flag claims. SCR tokens are denominated in whole units (no decimals) and are non-transferrable between users. A user may gain or lose SCR tokens as a result of his interactions with the platform, as expounded upon later in this paper. However, there is a minimum SCR threshold built into the platform. The amount of SCR that the user may hold in his

wallet can never fall below 1 SCR - the minimum required to act as an endorser. As much as we aim to encourage constructive participation in the platform, and to discourage misuse of the platform, we would not wish to exclude anyone from using the platform.

Considerations

Indorse Bucks (BUK) and Indorse Score (SCR) - Accounting Tokens

BUK and SCR are primarily accounting tokens, and the majority of users will not be aware that they are tokens. They are not exchangeable between users and never leave the platform. They are used to keep track of earnings and the reputation of the users. We use Ethereum tokens to allow transparency as well as being able to see what user's SCR amounts are, using independent platforms like etherscan.

Converting Indorse Bucks (BUK) into IDS tokens - Vesting Periods

After a six month vesting period, accumulated BUK tokens will be automatically converted into IDS tokens based on the amount of IDS in the pool from incoming advertising and the inflation mechanism (see below). The six month period is both a security mechanism and a way to reduce the gaming of the network.

Indorse Bucks (BUK) to IDS token Conversion - Pooled Tokens

As advertising credits are purchased with the IDS token, these tokens will be placed into a smart contract to pool the funds. These funds will be distributed on a monthly basis for the Indorse Bucks (BUK) generated six months prior and older. IDS tokens will also be minted regularly to maintain an annual inflation rate of 5%. This inflation amount will decrease over time (see below). The amount of IDS distributed will be divided in a ratio equal to the BUK tokens every user is holding in the vesting period. During the conversion to IDS, the BUK will be 'consumed/burned'.

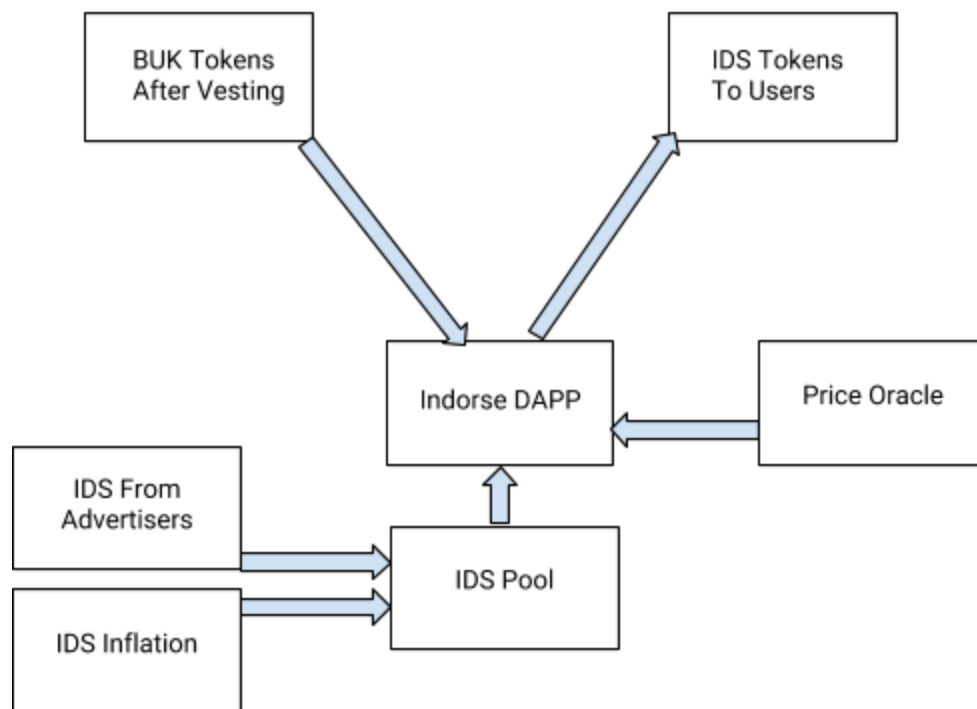
Advertising revenue with IDS tokens

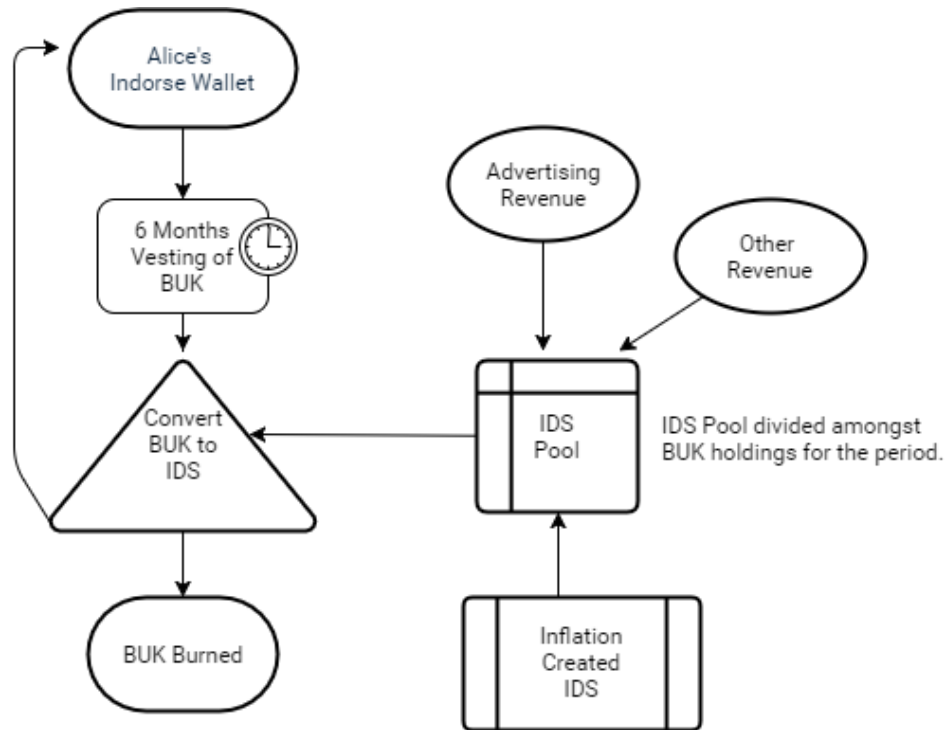
Advertising revenue will be the initial revenue source for the platform users. The IDS token is the defacto payment method for buying advertising space on the platform. Therefore advertisers will need to purchase IDS tokens on an exchange. If no public exchange is available, the platform administrators may accept a direct sale of IDS for ETH for the media buy at no better rate than offered to the existing IDS holders. These IDS tokens will be newly minted. The IDS tokens used in the media buys will go into an IDS pool which is later used for the converting BUK into IDS. The IDS is then distributed to the users based on their BUK holdings which have vested. The ETH received will be used to fund development and marketing for the platform. 50% of the IDS tokens used to purchase advertising not directly sold by administrators will be put into an administrator fund to be used to pay for the operations of the platform.

IDS Inflation - Pooled Tokens

In addition to IDS being pooled via advertising buys and other potential 'revenue events', there will be an internal inflation rate of 5% of the initial token supply. This is to create a reward pool in the event that limited advertising purchases are made. Early adopters to the platform should be rewarded with a fair rate of IDS for vesting. The inflation rate will begin along side the initial six month vesting period of the BUK token holders. The inflation rate will be halved every twelve months until it reaches 0.625% at which time it will be fixed. The halving is to correspond to increasing IDS in the pool from advertising buyers.

IDS Conversion Mechanism





Chapter 4 - Use Cases

We envision that the platform will be used in the following ways. But there can be many more use cases beyond just these.

Companies looking to hire

With a large numbers of graduates being the norm these days, companies are becoming more discerning with regards to their hiring practices. For instance, most of the tech companies today look not only at the coding chops but also the cultural fit of prospective candidates. The Indorse platform can be the perfect way to show how good you are as a human being, just beyond your Ivy League education and your job experience at Facebook or Google. If you can claim (and prove through endorsements) that you can skateboard, or that you're a swimming champion, or that you have watched the Star Wars rhapsody at Gardens by the Bay two times in the same night, then the hiring managers can get a clearer picture of you as a person, and a better idea as to your fit with the company culture.

KYC

KYC, or Know Your Customer has always been the Holy Grail of the blockchain community, with many companies and teams trying to solve this. While projects like uPort are the first step towards this goal, the Indorse platform will take the ecosystem significantly closer to the end goal. By attaching your identity, profile, and achievements to an Ethereum address in a decentralized manner, we are a step closer to a much better identity system.

Oracle for Prediction Markets

The Indorse platform can also feed into the existing prediction markets like Gnosis or Augur. So now, instead of prediction markets like 'Is Hillary or Trump going to be the next President', there can be questions like 'Is John able to code a Smart Contract'. On the other hand, we can even start treating really subjective claims similar to Prediction Market results, where people can vote on the outcome of a certain fact being true.

Advertising

The most direct use of the data collected on the platform is for targeted advertising. This includes the persons viewing the profiles and the profile creators themselves. Profile creators will be able to opt-out if they do not wish to share their data, however staying in will allow them to receive rewards in the form of Indorse Bucks.

Freelance Services

With credentials being endorsed on the platform, contract work and other job requests can be posted and filled by members of the community. One in ten working Americans have already entered the 'gig economy'*. Intuit further predicts that up to 40% of the population may be working as freelancers by 2020.

With more decentralized sites like ethlance coming about and changing the landscape of freelancing communities, we think that Indorse will feed into this ecosystem perfectly and can be the go-to place for people to check the credentials of their freelancers, before hiring them on ethlance.

*<http://www.reportlinker.com/insight/freelance-workers-gig-economy.html>

Chapter 5 - Development Roadmap

We consider T0 to be the time when the initial Token Sale (IDS) occurs.
(All numbers are in months)

Turing - T0 to T6

- Limited Alpha
- Ability to build profiles
- Ability to “claim” your profile updates
- Basic endorsement system
- Integration with Spectrum

Babbage - T6 to T8

- Integration with uPort
- Integration with Status
- Integration with Attores Certificate Issuance (CI) system

Dijkstra - T9 to T12

- Basic advertising system
- Connection with the various advertising APIs and the ability to buy ad space
- Refinement of the UI/UX

Lovelace - T13 to T15

- Token dashboard
- Oraclize integration
- Reality keys integration

Moore - T16 to T18

- Indorse Developer Toolkit
- Indorse API

Nakamoto - T19 to T24

- Indorse platform mobile app

Challenges

We are also cognizant of the fact that there are indeed some challenges in building this platform. What we are envisioning is really ambitious, and some of the components/features are dependant on external factors. These are the challenges that we foresee at the outset.

- **Integration with uPort** - Since uPort is one of the essential components of the system, we are somewhat dependant on it. Obviously, it can certainly work without uPort, but

then it'll have to depend on centralized solutions like Gmail or Facebook for authenticating the users.

- **Integration with Status** - messaging becomes an integral part of any social network. If the integration with Status is not successful, or there are delays in the launch of Status, the ability for in-platform messaging might be affected or delayed.
- **Uncertainty of data storage on IPFS** - one of the drawbacks of IPFS is that the data stored there might not be always available, since some of the nodes or peers might stop sharing or storing the data. We can mitigate this by creating multiple IPFS nodes ourselves or encouraging the users to host their own IPFS nodes. Solutions like FileCoin might remove these risks, but since the launch dates of FileCoin aren't known, this is one variable outside our control.

Chapter 6 - Token Sale

Initial Token Sale - IDS

The initial token offering for the IDS token will be via an initial token sale in exchange for ethereum tokens in support of the Indorse network. A distribution of 100 IDS tokens and 1 SCR token will be distributed to supporters per Ether pursuant to the Presale Purchase Agreement. No fractions of SCR token will be distributed, therefore for fractional amounts of Ether the SCR tokens will be rounded down. IDS tokens sent to supporters will represent 75% of the total supply created with the remaining 25% to be held by the network administrators, team, and advisors.

Supporters will send their Ether to an account specified on the Indorse website after a specified block number. The initial token offering will end when the end block is created, or when the amount of ether sent to the account reaches the maximum. If the token sale fails to result in a minimum number of Ether, then Ether sent to purchase IDS will be returned.

Advisors and team members will have a lockup period of 240 days before their IDS tokens can be redeemed.

The overall initial distribution of IDS tokens will be as follows:

- 75% for Crowdsale purchasers.
- 8% for Founders
- 5% for Employees
- 5% for Advisors
- 5% for Marketing and promotion distributed to the Indorse multisig wallet.
- 2% for Bug Bounty distributed to the Indorse multisig wallet.

Outside of the initial sale and IDS tokens created during forging, Indorse may sell additional IDS tokens to purchasers in the future.

Summary

IDS created per ETH	100
SCR created per ETH	1
Minimum Raised	US\$1,500,000
Maximum Raised	\$TBD
Token Distribution	
% of Tokens - Supporters (IDS Buyers)	75%
% of Tokens - Advisors	5% (time-locked 240 days)
% of Tokens - Founders	8% (time-locked 240 days)
% of Tokens - Employees	5% (time-locked 240 days)
% of Tokens - Marketing / Promotion	5%
% of Tokens - Bug Bounty	2%

The token sale address will be announced at the sales start through the following

Website: <http://indorse.io>

Slack Invite: <http://joinindorse.herokuapp.com/>

Slack Direct Link: <https://joinindorse.slack.com/>

Twitter: [@joinindorse](https://twitter.com/joinindorse)

Join the [Prelaunch List](#) for early access, updates and important information.

Please verify the receiving contract address with multiple channels listed above to prevent errors in sending.

Post Token Sale - holding of the funds

In order to limit downside risk of the ETH received losing value relative to the US dollar and ensure we are able to meet the financial obligations needed to complete the project, we will be hedging 50% of the funds. Of the 50%, 25% will be sold for US and Singapore dollars for short and mid term operational costs. The remaining 25% will be exchanged for DGX tokens which represent the equivalent of gold holdings in US dollar terms. This leaves 50% of the balance of funds in ETH which at a later date will be converted to USD or other currency as needed to fund the platforms development and costs. Whenever possible, expenses will be paid directly in Ether.

Please note that this is a draft of the White Paper and is subject to change.

Chapter 7 - Core Team and Advisors

Core Team

The Indorse team consists of professionals with extensive experience in the cryptocurrency markets and startups. The project is being administered by Attores, a technology company utilizing smart contracts and blockchain to secure documents and data. Attores' product focus is in issuing certificates placed on the blockchain for trustless verification and real time auditability of the status of the contract/certificates. Use cases include diplomas, licenses, ISO certificates and memberships in associations and societies.

David Moskowitz: *Project Head (Founder)* - David is cofounder and CEO of Attores. Prior to Attores, David founded a bitcoin brokerage 'Coin Republic' in 2013 and sold it in 2015. As a co-organizer of the Bitcoin Singapore meetup he has been a vocal evangelist for cryptocurrency and decentralization. He is also a board member of ACCESS The Singapore Cryptocurrency and Blockchain Industry Association. Pre-Blockchain, he was a systems integrator, helping SME's set up subscription systems online (SaaS). He has 20 years experience in product development, marketing and sales.

LinkedIn - <https://www.linkedin.com/in/davidmoskowitz/>

Twitter - @davidmosk

Gaurang Torvekar: *Project Technical Lead (Founder)* - Gaurang is cofounder and CTO of Attores. Gaurang has been involved with several startups in FinTech and AI across India and Singapore as the 'tech guy'. He has a Masters from Singapore Management University in Information Systems. He is the co-organizer of the Ethereum Singapore Meetup, and helped it grow from 23 members to 1300 members. He conducts courses on Ethereum hands-on coding and has also worked on a book on Building Ethereum Dapps.

LinkedIn - <https://www.linkedin.com/in/gaurangtorvekar/>

Twitter - @gaurangtorvekar

Dipesh Sukhani: *Project Operations Manager* - Dipesh has been recently appointed as the Operations Head at Attores. Dipesh is an Indian Chartered Accountant with 11 years of work experience in the field of international tax structuring. Dipesh was, until February 2017, working as a Tax Manager at PWC. Experienced in the field of tax and regulatory framework - he has assisted various multinational companies in bringing tax efficiencies in their operations. At Attores, Dipesh has been mainly working on the Front-end development of the application along with the Operations. Dipesh believes that blockchain will revolutionise the world and with this

vision stepped out of his consultancy world to help build blockchain ecosystem with his corporate experience.

LinkedIn - <https://www.linkedin.com/in/dipeshsukhani/>

Twitter - @dipeshsukhani

Avadhoot Kulkarni: *Project Marketing Manager* - Avadhoot is Chief Communications Officer at Attore. Prior to Attore, Avadhoot has served as a Marketing Consultant to FinTech and SaaS startups mainly in USA & South East Asia. After completing his Computer Engineering degree course, he worked at Siemens where he got introduced to Digital Marketing. His interest in Digital Marketing piqued when he learned how he can reach millions of people using technology and has been passionately working on it since then. He embraces growth mindset and continuous learning which eventually brought him to the Blockchain world of limitless possibilities.

LinkedIn - <https://www.linkedin.com/in/avadhootkulkarni16/>

Twitter - @avadhoot_kulk

Brian Ip: *Project Development Associate* - Brian is a Summer Associate focusing on business development at Attore. A newfound blockchain enthusiast, Brian finds the legal implications and issues surrounding the adoption of new technologies like blockchain fascinating, and thinks that technology will give the practice of law a new lease of life. At Attore, Brian seeks out opportunities for strategic partnerships, reads up on relevant legal regulations and outlines business development proposals. When not researching the latest blockchain technologies or trying to wrap his head around code, Brian can be found poring over law books. Brian will be starting his undergraduate studies in Jurisprudence at the University of Oxford in October 2017.

Advisors

Benedict Chan: Director of Engineering at BitGo, Inc., Creator of Ether.li (first ethereum multisig web wallet)

LinkedIn - <https://www.linkedin.com/in/bencxr/>

Twitter - @bencxr

Loi Luu: Founder and Developer for the SmartPool Project, Oyente, Developer, Ethereum Foundation Researcher, PhD Candidate in Computer Science at National University of Singapore

LinkedIn - <https://www.linkedin.com/in/loiluu/>

Twitter - @loi_luu

Matthew Tan: CEO and Founder of Etherscan

LinkedIn - <https://www.linkedin.com/in/matthew-tan-4a3021a7/>

Twitter - @etherscan

Chapter 8 - Funding Usage Breakdown

Funds raised during the initial token sale will be used solely for the development and advancement of the platform. The level of funds will dictate the extent and timeline of development. A funding breakdown of \$1million is discussed below.

Development: 65%

Research and development will involve the building of the technology as described in this document. This includes: the Token App, smart contract systems, publishing system, claim voting system, advertising system, and the other relevant components.

Sales and Marketing: 20%

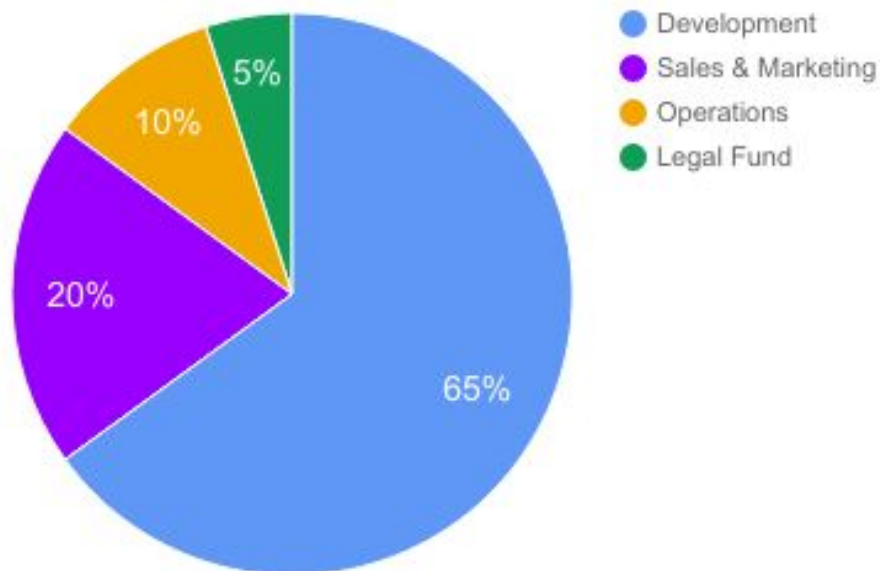
Marketing spending will be used for bringing in new users into the platform, developing partnerships, and bringing in advertising to the platform.

Operations: 10%

Operational costs such as office rental, accounting, and other day to day operational needs and overheads are covered here. Operational costs also include code reviews and security audits.

Legal Fund: 5%

We think it's a prudent idea to hold a portion of funds for any potential legal issues that may arise.



Chapter 9 - Legal Implications/ risks

Disclaimer

NOT AN OFFER TO SOLICIT SECURITIES AND RISKS ASSOCIATED WITH IDS, SCR, BUK
AND THE INDORSE APPLICATION

Last Updated May 7, 2017

The subject matter of this white paper deals with "Indorse", a decentralised professional social network ("the application"). Indorse is being developed by Atttores Pte. Ltd, a corporation of limited liability incorporated in the Republic of Singapore (Reg no. 201525709Z) ("Atttores Pte. Ltd"). For the purpose of raising funds for the development of Indorse, Atttores Pte. Ltd will be conducting a public sale of Indorse IDS tokens (the "crowdsale"). For the purposes of this section, any and all members of the public who purchase Indorse IDS tokens (taken to be as "participating" in the crowdsale) shall be referred to as "participants".

This document is for informational purposes only and does not constitute an offer or solicitation to sell shares or securities in Atttores Pte. Ltd. or any related or associated company. Any such offer or solicitation would only be made by a confidential offering memorandum and in accordance with applicable securities and other laws. None of the information or analyses presented are intended to form the basis for any investment decision, and no specific recommendations are intended.

Nothing in this document shall be construed to imposing an obligation to participate in, or imposing mandatory participation in the crowdsale event. No act relating in and of itself to this document, including but not limited to, requesting a copy of this whitepaper or sharing this whitepaper, shall constitute participation in the crowdsale. By participating in this crowdsale, all participants represent that they are of full age and have full civil capacity to enter into a contract of sale with Atttores Pte. Ltd for the purposes of giving effect to the crowdsale ("the contract"). All participants further represent that they are entering into the contract of their own free will, and that they have done all due diligence as necessary prior to entering into the contract.

Atttores Pte. Ltd shall endeavour to make reasonable attempts to ensure the information in this document is factually true and is a correct representation of the platform at the material time of publishing. As a result of development there may be changes to the platform, including but not limited to: the platform mechanism, the platform tokens, the token mechanism, proposed allocation of tokens, proposed distribution of funds raised, that may not surface in the white paper until the next version of the white paper is published. Atttores Pte. Ltd shall take reasonable steps to give notice of these changes through posts on the application's crowdfunding website, or by publishing the next version of the white paper. All individuals are to

endeavor to ensure they have the latest copy of the white paper and take into consideration all such notices of change on the website in making their decisions.

Accordingly, this document does not constitute investment advice or counsel or solicitation for investment in any security. This document does not constitute or form part of, and should not be construed as, any offer for sale or subscription of, or any invitation to offer to buy or subscribe for, any securities, nor should it or any part of it form the basis of, or be relied on in any connection with, any contract or commitment whatsoever. Wherein Attores Pte. Ltd has endeavoured to make reasonable attempts to ensure the information in this document is factually true and is a correct representation of the application at the material time of publishing, Attores expressly disclaims any and all responsibility and liability for any direct or consequential loss or damage of any kind whatsoever arising directly or indirectly from: (i) reliance on any information contained in this document, (ii) any error, omission or inaccuracy in any such information or (iii) any action resulting therefrom.

The tokens, "IDS", "SCR", "BUK", are cryptographic tokens used by the Indorse application. IDS, SCR, and BUK are not the following classes of goods:

- a) Currency of any kind
- b) Shares or interest in a collective investment scheme
- c) Stocks, debentures, note, warrant, certificate or any other instrument of which the purpose is to grant a right to interest, dividend, payment or any kind of return from any person
- d) Any form of security
- e) Equity interest in a legal entity

At the time of this writing, (i) with the exception of being used to place ads on the application, IDS, SCR, and BUK cannot be exchanged for goods or services, (ii) IDS, SCR, and BUK has no known uses outside the Indorse application, and (iii) IDS, SCR, and BUK cannot be traded on any known exchanges.

There is no guarantee – indeed there is no reason to believe – that the IDS you purchase will increase in value. It may – and probably will at some point – decrease in value. Attores Pte. Ltd makes no representation as to the value ascribed to the IDS, SCR and BUK tokens, and expressly disclaims any and all liability that may arise as a result of the change in any value ascribed to the IDS, SCR and BUK tokens.

Attores Pte. Ltd, as the organizer of this crowdsale, may be required under laws of the applicable jurisdictions to carry out, among others, anti-money laundering, counter-terrorism financing checks and/or any other background checks to that end and/or as may be required by the laws of the relevant jurisdictions (collectively referred to as "KYC checks"). By participating in the crowdsale, all participants agree to comply fully with such KYC checks, and represent that all information disclosed to Attores Pte. Ltd for the purpose of compliance with such KYC checks are complete and accurate to the best of their knowledge.

IDS, SCR, and BUK is not evidence of ownership or right to control.

Controlling IDS, SCR, and BUK does not grant its controller ownership or equity in Atttores Pte. Ltd, or the Indorse application. IDS, SCR, and BUK does not grant any right to participate in the control, direction or decision making of Atttores Pte. Ltd or the Indorse application.