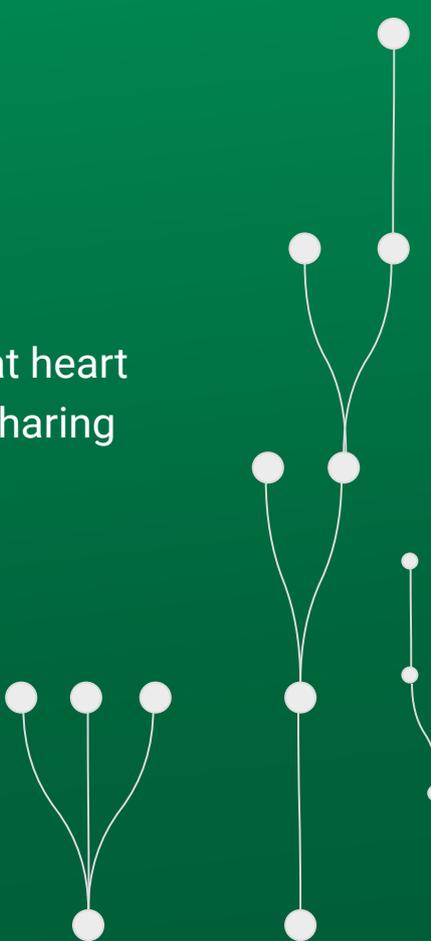


2key

Re-Inventing The Link

A distributed social economy with a new link at heart
One that compensates you for caring about sharing



WhitePaper

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2key Network

A blockchain-based social economy offering a new economic model for online sharing. 2key network empowers Internet users to regain control and monetize their information flow online.

Our mission is to give the masses the tools needed to onboard Web 3.0 without tarnishing the convenient user experience of Web 2.0. Because while web 2.0 democratized knowledge, we believe that web 3.0 will democratize value. 2key's technology lets everyone earn their portion from the wealth the internet generates by simply using the web the same way they always do: by sharing links.

By enabling anyone to earn money and reputation for making successful referrals anywhere online, 2key empowers individuals and organizations to incentivize the human web to produce desired results, incentivizing online sharing in respect to the business results generated from each link referral.

DEAR CITIZEN OF THE NEW WORLD

This network is built for the people, by the people.

We've took time to make this paper clear and easy to read.

Because if you plan to be part of the 2key network, you'd want to read it.

This white paper is a work in progress.

It will be constantly updated to reflect our progress as well as the updates in the market, economy and blockchain ecosystems. We're working hard to stay ahead of the curve, and ensure that anyone contributing to the strength and viability of the 2KEY economy will be well served. That's why we're constantly adapting our tactics, strategy and product to make sure we're keeping a tight product market fit. So anything you read here may be changed as the crypto-big-bang unfolds and as we work to adapt.

This whitepaper is for informational purposes only. It doesn't entail or constitute any recommendation or suggestion to purchase 2KEY tokens, nor does it attempt to promise any returns or profits from purchasing 2KEY tokens. The 2KEY token is a utility token which will be used, among other utilities, for accessing the 2key Network services, creating campaigns, paying out remuneration for services received via other participants on the network, collecting fees for services rendered by the network and its participants.

Any early adopters of the 2key Network reading this should perform their own due diligence before purchasing 2KEY tokens and participating in the 2key Network.

We strongly encourage anyone with doubts, questions or uncertainties regarding 2KEY token or the 2key Network, underlying tokenomics, technology, product, architecture or any other subject area, to contact us at on our TG group at: https://t.me/twokey_official or write us an email at: hello@2key.network

Thank you for your interest in 2key Network.

We hope you will join us in building a new kind of human web, for the people, by the people.

Sincerely,

eiTan LaVi, Founder & CTO

2key New Economics Ltd.

Section 1

Executive Summary



1.1

Introduction

Online link sharing can generate many types of business results. When we take an active role to faithfully and selectively share links with our friends, we're advertising the products, services, or content related to them, and can lead our peers in the network to consume content, purchase services, provide information, install new apps, sign-up to websites, donate to causes etc.

In the current online reality, however, we don't get compensated for the work and time we invest in serving our peers with relevant online information. Because we are not remunerated for our successful, productive online information relays, and also because we are not penalized for any useless, spammy link sharing, the current state of the web is that our link sharing remains random, impulsive and largely unproductive.

At the same time, small businesses, organizations and freelancers are struggling to identify and reach the right audience without going through centralized platforms such as Google or Facebook and risking their budgets on costly online campaigns that often fail to lead to conversions.

It doesn't have to be this way. We're all connected by no more than six degrees of separation to one another. If we collaborate as ad-hoc social networks, we



could relay links from one to another and drive them to their target audience without a centralized mediator. This could be achieved if we forwarded links from one person to another with the specific goal of finding the right audience for them, in the scope of specific campaigns with specific target results. The key is to get people to actually behave in this way, on a large scale.

2key network enables businesses, organizations and freelancers to bypass centralized platforms and collaborate directly with their fans and supporters. It is based on groundbreaking blockchain technology that makes it possible to utilize regular web browsers as decentralized off-chain blockchain nodes, and to embed smart contracts into regular HTTP links, so that by link sharing and web browsers, it is possible to play out smart contracts, and in this case, to the ends of embedding economic models into link sharing.

The uniqueness of 2key's incentivization mechanism is that it remunerates EVERY person in referral chains leading up to successful conversions. Participants in the 2key Network can earn income and reputation only for providing actual service which bears fruit in the form of achieving desired results in 2key campaigns. The remuneration on the 2key Network is relative to the participant's contribution, depending on their earned reputation on the platform thus far, and their performance and results on the given campaign.

When everyone gets to earn reputation and income for driving business results via their online link sharing, a whole new way of connecting people,

information and economics becomes possible. 2key's innovative "Share & Earn" mechanism creates a powerful network effect turning the human web into an incredibly useful system for 'target audience discovery'.

THE 2KEY NETWORK

2key Network is an online, distributed, social economic network, in which reputation is the underlying asset. Participants can earn or lose reputation depending on their actions and results on the platform. Reputation can't be bought, and can't be traded, it can only be earned or lost depending on positive or negative outcome of the participant's services rendered on the platform.

Participants can serve in the network as one or more of the following roles:

- **Contractors** issuing new 2key Campaigns - looking for conversions (business results), willing to compensate referrers and integrators (and sometimes converters), for achieving required results.
- **Referrers** service providers tasked with selectively relaying information about campaigns and required results in campaigns to correct target audiences, via multi-step referrals.
- **Converters** participants willing and able to produce actual desired results in 2key Campaigns
- **Integrators** service providers who offer services in campaigns (e.g. conversion validation, converter validation, incentive model optimizers etc.), charging fee per conversion achieved on campaigns in which they serve.
- **Miners** participants who opt in to offer some of their devices' CPU, IO, RAM etc., and willing to stake 2KEY in order to function as browser-based miners in 2key campaigns, helping to secure and sync the state in 2key Browser-Based Multi-Party-State-Networks. Participants earn or lose reputation in

any and all roles they assume. Reputation on the 2key Network has direct economic effects on the remunerations obtainable on the 2key Network:

- **Contractors** can enjoy reduced staking requirements to activate campaigns as their contractor reputation increases, as well as be able to draw in more high quality sourcing seed referrers and following.
- **Referrers** receive higher remuneration as their referrer reputation in specific categories increases. Referrers may also be exposed to more campaigns with higher minimum reputation threshold for referrers as their referrer reputation increases.
- **Converters** may receive higher discounts on their purchases, or may be eligible to convert in more campaigns with higher thresholds as their converter reputation grows.
- **Integrators** may charge more fees per conversion and enjoy reduced staking requirements as their integrator reputation increases.
- **Miners** may enjoy higher selection probability to serve in campaigns as their mining reputation increases.

2key network opens up the untapped potential of human networks to rapidly search and identify the right individuals for achieving specific goals or tasks. It offers a way for humans to collaborate in transmitting the right information to the right people by simply compensating each participant on the network relative to the value of the services rendered by that participant to other participants on the network. By offering a simple new and effective tool for online collaboration, the 2key network is creating a new source of value, offering people a new method for achieving goals that weren't possible before.

2KEY TECH

Our starting point for building 2key network's technological infrastructure were regular HTTP web links, the most ubiquitous (and the only decentralised) feature of the current World Wide Web. Our goal was to create a decentralized network, in which each link has the power to independently track, record and automatically remunerate every participant it has passed through if and when referral chains generate required results.

2key network is decentralized by design, so that each link on the network will act independently as a type of smart contract that records referral chains and eventual results attained from shared links, and is able to then remunerate participants who have shared it when certain conditions and required results are met. One of the important advantages of the 2key links is that they are regular web links with smart-contracts embedded inside, so that anyone can effortlessly use them through their regular web-browser without requiring any technical knowledge.

To achieve this, 2key network combines three unique 2key innovations with blockchain technology

First, 2key developed a technology called multi-step tracking, which can be seamlessly embedded into regular links, enabling them to automatically track and record each person they pass through. (more on this topic in section 2.4.)

Second, we developed the 2key protocol, which seamlessly embeds smart-contracts within regular web links. This allows each link to encapsulate agreement terms and carry them out independently, just like a smart contract. On the 2key network, this technology is used to define and distribute the amount of the reward that each participant who has shared the link will receive, in case the link leads to a desired action, such as someone making a purchase, leaving their details or investing in a project. (more on this topic in section 2.2.)

Third, to make the entire network more efficient, the 2key protocol will enable participants to create, through their regular web browsers, multi-party state networks. The great advantage of these decentralized multi-party p2p networks is that they will allow users to connect directly and dynamically update contracts in real-time among participants, securely yet off-chain, thus enabling rapid transactions without sacrificing decentralisation. As the 2key protocol progresses, more of the 2key campaign transaction types will be migrated to the 2nd layer protocol. Eventually all 2nd layer transactions are persisted into the 1st layer blockchain for long term immutability as social security archive and enforcer of state (more on this topic in section 2.2.).

The 2key network will offer an online tool that every small business, freelancer or individual can easily use to advance their goals through human collaboration. Creating a link on the network will require no technical knowledge or complex code installation. This will offer a new world of possibilities for the entire long tail of businesses, who currently have no

viable online alternative to reach the people who may be interested in what they have to offer (more on this section 3).

At the same time, the network will offer every participant a new possibility of effortlessly monetising their social knowledge and connections by forwarding the right links to the right people, and being compensated for their work on the platform efforts providing valuable service to their peers on the network.

To optimise the network's efficiency and prevent its abuse, 2key is developing another unique technology which combines game-theory with artificial intelligence to create a complex system to calculate a dynamic individual 'reputation score' for each of the network's participants. In very general lines, each participant's reputation increases when they participate in a successful link-sharing trail and decreases whenever a link they shared is ignored or reported as spam. The percentage of earnings that each participant will receive for successfully sharing links will be strongly influenced by their reputation score (more on this topic in section 4.3).

2KEY TOKEN

2key network functions as a distributed economy, with a native utility token called the 2KEY token. 2KEY will be the token used for syncing all actions in the network into a network effect for building the platform as a functioning economy.

2KEYs will be required by 2key network participants for creating and activating campaigns, for obtaining Proof of Stake in the context of serving serving as miners in 2key campaigns, for submitting stake in the context of serving as integrators in 2key campaigns, and will be paid as fees for integrators and referrers providing successful services in 2key campaigns. 2KEY will also be usable for making purchases/donations on the platform with special discounts vs. external currencies, as well as allowing reduced staking requirements when depositing 2KEY directly (as opposed to purchasing per campaign). Nevertheless, the network will enable to pay for purchasing goods or services. with other means and tokens.

We intend to allow both credit card based, and stable coin based gateways for allowing people to easily participate in campaigns where the required result is monetary (e.g. donations, tokenized asset sale, crowdfund). 2KEY token might also be used in the future for purchasing ARCs on an open marketplace, as a means kfor enterprises and big businesses to integrate their systems into the 2key Network.

The token economics model applies a complex system of remunerations designed to motivate users to optimally provide services within the network in such ways which produce positive impact and outcomes both for atomic campaigns running in the network and for the network at large. Another important part of our token economics model is hardwiring the business model of network integrators, among them 2key Ltd., with the viability of the 2KEY token, by various methods of network level taxations on integrator fees earned on the network.

1.2.

The Problem

THE PROBLEM WITH ALGORITHM-BASED TARGETING

The massive online advertising industry has been practically taken over. The Google-Facebook duopoly controls over 70% of the market, using their enormous scale to collect data and deliver targeted advertising. Yet algorithm-based targeting creates a multitude of issues, three of which particularly stand out:

- **Businesses and organizations can't directly interact with their customers.** And are forced to pay increasing sums for exposure, often without results.
- **Robotic targeting is remarkably inaccurate.** It's still difficult for robots to figure out the right audience for stuff, resulting in extremely low average click-through rates.
- **Growth through robotic advertising is inorganic.** Algorithms create a customer base that's not connected through social connections, so that it's weaker and less sustainable in the long run.

THE PROBLEM WITH MARKETING PIXELS

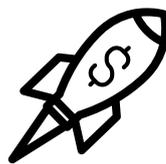
Online referral marketing programs were an attempt to create a more organic alternative by rewarding people for recommending stuff online. But these solutions were they're technologically limited. They were based on 'pixel' technology which came with its own set of issues:

- **Pixels require costly and complex integration** and expert knowledge for their operation, so they're ineffective for the long tail of businesses.
- **Pixel-based solutions require a (relatively high) monthly fee**, whether or not they create results. So businesses risk investing in them without seeing returns.
- **They require businesses to have a working website or app** Preventing small businesses and solopreneurs who don't have one from using the technology
- **Pixels can only track user behavior within the single website or app** on which they are installed. Which means they can't track the user journey across the web and provide actionable insights.
- **They can't create a network effect** Word-of-mouth gains momentum by passing from one person to another, yet current referral solutions use a direct reward system that offers no incentive for working in collaboration.
- **They don't invoke trust** By rewarding referrers per result, these solutions promote unreliable references, which quickly lose reliability and become ineffective.



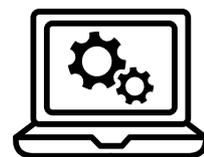
No Alternative

to Google/Facebook
duopoly



Rising Uncontrolled Advertising Costs

and smaller profit margins
for businesses



Artificial Robotic Marketing

Inaccurate, unnatural,
un-organic



1.3

The Vision

It's been shown that every person is connected to every other person in the world through other people, by a maximum of six degrees of separation. So to get information to the right people through a human-based network, the trick is to find the right people. We set out to enable effective and accessible referral sharing based on human social intelligence, rather than algorithms. The 2key network will:

- **Incentivise people to collaborate** in getting campaigns to the right audience. By continuing to share them until they produce results.
- **Focus people's natural tendency to spread information** towards achieving real-world goals.
- **Directly remunerating people successfully sharing campaign-links**, rather than remunerating the platforms they share them through.
- **Offer simple, risk-free access** for using the power of referrals and pay only when campaigns generate required results.
- **Protect participants** from being bombarded by irrelevant or unreliable advertisements, information or referrals.
- **Enable people to exchange information within economical contracts directly** in a decentralized network that isn't controlled by any centralized server.

1.4.

The Solution

By combining 2key's technologies with blockchain and smart contracts, 2key can now place entire referral campaigns in regular HTTP links. So each link on 2key network can act as an independent smart contract, which defines the campaign's goals, and the rewards for achieving them.

As people share the link, the link tracks and records each person who shared it. Each time the campaign achieves a result, the link used by the converter who actually produced the conversion event automatically unlocks the pre-defined payment and distributes it among all the people who've shared it. Each participant earns a payment for providing a valuable service - utilising their time, mental efforts, social network and reputation for getting the word out to relevant people. Thus, information spreads virally and campaigns rapidly reach their ideal audience to generate results

The 2key network offers a referral solution that's fair, accessible and effective. Everyone wins. Campaigners get a powerful tool for using referrals to achieve their goals, while the people who share the campaign finally have a way for being paid for providing the valuable service of selective, faithful, relevant information relay within their immediate social network.

Section 2

2key's Tech Innovations



2.1.

Brief Description of 2key's Innovations

The development of blockchain protocols and the Dapps that run on them is highly interdependent. That's why we're developing both the 2key protocol and the 2key network at the same time.

The 2key network is the first Dapp implemented on top of the 2key protocol. It combines three 2key innovations, offering an entirely new model of online collaboration. Potentially, 2key protocol can also support other applications in the future.

THE 2KEY PROTOCOL

2key protocol acts as a bridge between regular web browsers and blockchain networks. It enables people to easily use smart-contracts through their regular browsers without entry barriers or complex code implementation. The 2key protocol is seamlessly embedded into regular HTTP links, creating cryptographically signed links that can be shared across the web just like regular links. As they are being shared among participants, 2key links connect the browsers they pass through into an ad-hoc blockchain state-networks, consisting of multiple participants. These networks allow participants to deploy a smart-contract among them and update it in real time through their regular web browsers.



MULTI-PARTY STATE NETWORKS

In general, state networks are second-layer blockchain networks, which enable people to perform some transactions more rapidly and effectively by taking them off-line.

2key enables participants to 'create' state-channels through cryptographically signed links (embedded with the 2key protocol). These state networks are different because they can include multiple participants, allowing them to dynamically interact off-chain. Another great advantage of the 2key state-networks is that they enable people to create state networks ad-hoc, without requiring prior knowledge of the parties involved.

MULTI-STEP TRACKING

Multi-step tracking is an innovative technology that enables regular HTTP links to automatically track and record every person who shares them. The technology is effortlessly embedded into regular links, allowing the links to independently track and record every person who shares them. This makes it possible to reward each person who shared the link once a result is achieved. Multi-step tracking is at the core of the 2key network. It enables the network to remunerate each participant individually for their relative contribution to collaborative efforts. When each person knows that their small contribution will be tracked and rewarded, each person has a strong motivation to collaborate towards achieving common goals.



2KEY LINKS

2key has created two distinct technologies that can be seamlessly embedded into regular links: the 2key protocol and multi-step tracking. A 2key link is a link that's embedded with these two technologies. In fact, this means that the link is embedded with a smart contract and can act as a store of value, which automatically unlocks this payment in case certain conditions are met.

2key link is deployed per referral campaign by the campaign initiator (the "link creator"), who deposits value in the form of 2KEY tokens, as a potential payment for completing the contract. With the 2key link, the campaign smart contract constructs a multi-party state channel spawning from the initiator of the campaign to the referrers, while 2key's multi-step tracking technology records each person who forwards the link.

In this way, referrers are guaranteed their success-based payments in case the link reaches its target audience and generates results. There is no need for exchange of commitments, as the 2key link itself acts as commitment for paying out commissions on a per-result, per-success basis.

2KEY NETWORK

The 2key network is a new kind of referral solution. It is based on people collaborating and sharing information with the goal of getting campaigns to their ideal audience. What makes the 2key network different is its

unique incentive model. The 2key network smart contracts facilitate to pay each participant who proves to drive results in campaigns, so that people can trust that they'll be remunerated if they can prove to be of service in campaigns.

By paying people for selective link sharing, 2key network generates a type of online virality that's focused on achieving business results. Campaigns on the 2key network are targeted by the people who share them, who can rely on their social knowledge and outstanding reputation to estimate which links might interest the people they know.

By combining 2key's proprietary technologies with blockchain and smart contracts, 2key network is able to track the journey of campaign-links through the web and reward people according to their efforts. It also combines a powerful incentive model that strongly incentivises people to share links with people who are interested in the campaigns they share and powerfully discourages spamming.

ALGORITHMIC GAME THEORY BASED INCENTIVE MODEL

This novel algorithm computes a reputation score for each of the participants, rewarding productive referrers according to the results generated by their online sharing and penalizing spam and irrelevant-information sharing.

Combining a multitude of factors, the model will gage each participant's respective contribution to the success of 2key campaigns and the network as large, and will pay a commission to each participant in direct relation to the quality of their rendered services.

The model is designed to ensure optimal incentivization for participants to put in time, mental efforts and their social reputation in choosing the people with whom to share various 2key links.

2.2. In Depth

The 2key Protocol and Multi-Party State Networks

The 2key protocol is the technology that enables 2key links to independently carry out smart contracts. The process begins with a link creator who generates a smart contract on a layer1 blockchain, and in parallel stakes 2KEY tokens to establish and secure the browser-based multi-party state-network for that campaign, which will be initiated by the protocol validating reputation and 2KEY staked for the contract, and generating the root link for the contractor to start sharing and joining others into the contract/campaigns. Additional 2KEY is usually also required to purchase or commit into the contract, to secure a remuneration budget for that campaign - to pay out for the referrers and integrators who will be serving in the campaign.

It should be noted that all funds are stored either by smart contracts directly or by participants' non-custodial wallet. The financial aspects in the protocol are purely decentralised, and there is no central entity or server holding participant funds.

At the moment of campaign generation, the newly generated 2key links are automatically embedded with the 2key protocol. The protocol is embedded within the links' front-end code, transforming these regular HTTP links into cryptographically signed links that hold within them a smart contract and

the commitment of payment for its completion. In other words, the links turn into a store of value.

As the links are passed on during the campaign, people interact with them, clicking on them and sharing them with others. Whenever a browser opens the link, the 2key protocol automatically connects it with the last and next browser who interacted with the link. In this way, the network of connected browsers grows as the link is shared. The 2key protocol connects these browsers into ad-hoc state networks that can act out the smart contract for the campaign.

Because the 2key link itself contains a smart contract and stores value, the browsers can create off-chain state-channels through which they can act out the smart contract without touching the 1st layer blockchain for the majority of the contract's life cycle. This ad-hoc browser's network is created per contract. It has the qualities of a state network because it is decentralized and allows participants to play out smart-contracts off-chain and then sync with the main blockchain network.

Yet the networks created through the 2key protocol have the significant advantage of allowing multiple people to participate in these state networks, without requiring any previous knowledge of the parties involved. These upgraded state-networks are called Multi-Party State Networks.

Browsers that participate in the network will be able to advance the state of the contract, off-chain, by simply sharing it with others. Upon conversion or finalisation of the contract, participating browsers will submit the signed-links to the main-chain, synching it with contract's new state and rewarding referrers for their actions.

We are now working to expand the 2key protocol to enable a general multi-party state channel solution. As the network grows, storing all of the information in a single link will be limiting. We are now building an option of moving this information to a centralized storage, currently using IPFS. In the future, the 2key signed link will contain a single hash that represents the entire state at the moment of interaction, transaction or state change request. We are aiming for the 2key signed link to ultimately become a small piece of javascript that will use specific IPFS hashes and state hashes to direct browsers to load larger javascript codes from a decentralized storage.



2.3. In Depth

2key Links

2key links are links embedded with the 2key protocol. They're basically a short javascript containing a Code Hash and a State Hash [`~ js://{code-hash}&{state-hash}`]. They're not location based and don't have any IP reference.

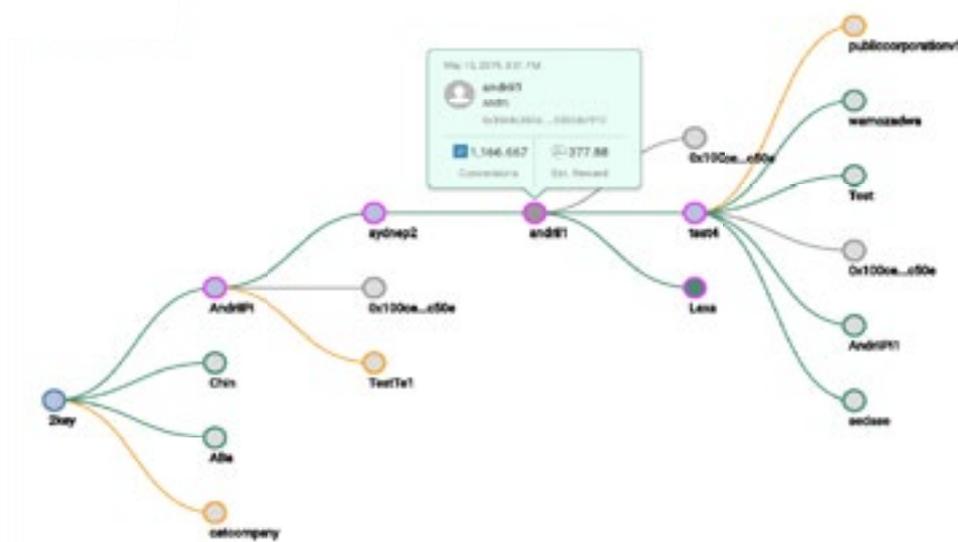
The Code Hash is a Merkle-web hash dictating the code required to download from decentralised storage (e.g. IPFS). This code contains the actual Dapp UI and the 2key protocol cryptography, which turn any browser they reach into a peer in a decentralized ad-hoc p2p network. As the link is shared across the web, this p2p network grows to include each browser that has touched the link. This browsers' network can then play out the smart contract off-chain, in a pure front-end-2-front-end decentralised manner.

The State Hash is a transaction request or state change request propagated between participants in the campaign network, thus advancing the contract's state graph.

2key's unique novelty is building multi-party state networks through these cryptographically signed 2key links. We can do this because each 2key link carries a commitment for a payment for a path of referrals.

2.4. In Depth

2key's Multi-Step Tracking



OVERVIEW

2key network offers a simple online tool for creating referral campaigns that offer a new level of targeting, have zero entry barriers and pose no risk for contractors. Our revolutionary multi-step tracking technology makes the 2key network possible. It enables simple links to track every person who has shared or interacted with them, forming a record of link-sharing chains.

On the 2key network, multi-step technology is seamlessly embedded within regular web-links, which are also embedded with smart contracts. Thanks to the integration of these two technologies, the links on the 2key network are able to independently track and record the participants who share them. This is essential, because when the campaign achieves results, the links can then unlock the reward and distribute it automatically among every person

who shared the link with the right people. Furthermore, by locking in 2KEY within the campaign contract, all parties can be assured that payments will only be made per the contract predetermined, transparent and agreed upon rules, ensuring only valid services helping to drive the campaign to achieve its results are being paid, and that all those who provide services helping the campaign reach required results, are compensated as per stated in the contract.

PIXEL-LESS TRACKING

Current technology relies on pixels for tracking online referrers. Yet pixels require complex integrations and constant management and can only be installed within a specific website or app. Pixels can only track people who enter the sites or apps in which they've been installed, but they cannot track the entire trail of people who shared a single link across several sites and apps.

Multi-Step technology enables entirely pixelless-tracking with zero integration requirements. The tracking is performed not by specific sites or apps, but by the links themselves, as they are being shared. With multi-step, each person who shares the links, anywhere on the web, is automatically tracked and registered, charting full referral chains from beginning to end.

MULTI-STEP TRACKING IN ACTION

A campaign is started by a contractor who shares actionable links with a first group of people, this first group is link's 'sourcing seed.' Each person in the group can now act as a referrer and share the link with people who may be interested in it. A sequence of consecutive referrals forms a referral chain. The link is intended to reach someone who will be interested to take action through it, such as purchasing a product, signing up for an event or subscribing to a publication. People who take action through the link are called converters and by their actions they unlock the reward for the campaign. The spread of information within a campaign is charted within a referral graph which is a directed acyclic graph (DAG) updated in real time. Each person receiving the contract is registered as a referrer by default. Referrers can share the link (or the contract's code) through any channel of online communication, with anyone they wish. This creates a new group of referrers, who can then continue to send the link onwards to one or more addresses on web3.0 or web2.0, who can then relay the contract further, in a branching out tree-like manner (actually a one-directional graph), until the link reaches the converter.

CHARTING REFERRAL CHAINS

The contract's referral network (refnet) is a tree-like unidirectional graph charting the link-sharing trail. Each refnet's starting point is the contract creator, from which it branches out to the first group of referrers and from them to the people they've shared the link with and so on, ending at the



point of conversion.

Each refnet graph includes the following data:

1. generated conversions,
2. generated value,
3. average branching-out-factor,
4. weighted net level (weighing over the branching out, seeing where most of the energy in the branching out is located),
5. average conversion rate per level
6. average reputation of the ref net
7. conversion contribution strength - projected contribution of the influencer to conversions that arose on the refnet.

A referrer's refnet is the individual sub-tree of the refnet, which charts the tree of referrers originating with each referrer. Its starting point is the first referrer in the chain, then branching out and charting the entire net spanned from the initial sharing. The referrer's refnet generates information on the referrer, that is then used in the calculation of their reputation score (see section 4.3).

MULTI-STEP TECHNOLOGY FOR WEB 3.0. - INTRODUCING ACTION REFERRAL CONTRACTS (ARCS)

The web3.0 core architecture generates a new micro-economy around each campaign smart contract. This is facilitated by the Activation Referral Contract (ARC) token - a new ERC20 token type minted in dynamic balance for each campaign.

ARCs are the 2key network's means of allowing contractors and/or integrators operating on their behalf to optimise the topology of the referral graph in each campaign. Having ARCs in a campaign is akin to having invites allowing other to join the campaign. If you've been given 5 ARCs for a campaign, this will allow you to invite up to 5 people to join the campaign, either as referrers or converters. There is a static mechanism by which the contractor can pre-set during campaign creation, how much ARCs quota each new referrer will get, and there may be incentive model optimiser integrators, who can control this programatically to further optimise the topology in a dynamic manner.

For example, if this is a content distribution campaign, with the required result to consume some online content (e.g. an article), it would make more sense to start out each referrer with a very high ARCs quota (i.e. allow more "spray and pray" or broad/gross sharing), and only reduce it programatically in case anyone starts spamming. On the other hand, if we have some SMBs running a lead generation campaign (e.g. a gardener looking for new prospective clients), since the contractor in this case would have to quality the leads manually, we wouldn't want them to wake up the next day with thousands of leads to qualify, and so it would make sense to start off with a very low ARCs quota per referrer, and increase it if good results are brought about from this sharing. Starting referrers off with smaller ARCs balances promotes a more careful information relay, at the expense of volume. This is the inherent tradeoff which the ARCs mechanism allows.



Each 2key link in a 2key campaign has a pre-defined number of ARCs, which can also change dynamically in case programmatic integrators are serving in the campaign as incentive optimisers.

In some ways, ARCs behave as a token, in that they can be transferred between blockchain addresses just like any ERC20 token would. On other aspects, they're quite different, as they don't hold any monetary value whatsoever, but rather, they only function as a tracking mechanism to manage invite quotas for every referrer on the campaign.

A new micro-economy of ARCs is generated for every campaign; these ARCs act not only as invites, but also as the keys into the campaign doors. Once you have received an ARC for a campaign, you can access its data, and are able to perform various operations in the campaign (namely generate your own 2key link, or convert) - by obtaining your own quota of ARCs which you can then transfer onwards.

The ARCs also act as a native web3.0 referral-chain tracker, as they are designed to chart a sorts of digital breadcrumbs trail when they are transferred from on referrer to another. When the link finally lands in the hands of a valid converter which enacts the required conversion event for this campaign, this trail is used to distribute referrer payments across the chain.

In the underlying framework, ARCs could be used by anyone with a web3.0 compatible wallet, whereby referring campaigns becomes as easy as passing along tokens from wallet to wallet.

MULTI-STEP TECHNOLOGY FOR WEB 2.0.

As there is very little current adoption for web3.0 and web3.0 wallets, coupled with scalability issues in actually decentralised virtual machines (e.g. Ethereum), we've developed a layer2 protocol enabling to act out these high volume referral graphs solely utilising HTTP and web browsers, so that transferring ARCs and interacting with the smart contracts will be as easy as sharing links and opening them in any web browser of choice, on desktop or mobile.

Behind the scenes, when a person clicks a 2key link on their regular browser, the browser is automatically invoked to join an ad-hoc decentralized network for interacting with the link's campaign contract. In fact, the link turns the browsers and wallets sharing it into nodes in a small network of people who interact with the link, so that each can receive and refer ARCs with others who have interacted with the link.

Participants can then use their browser to generate a secure wallet with a private key stored in a local storage (similar to Metamask, but which doesn't require the plugin or extension installation). Or they can connect the browser to an existing external wallet (such as Metamask).

2key network will enable explicit Identification via federated or sovereign ID providers to ensure that the network is used by real humans. This will give everyone who joins the possibility to begin collecting social capital and

reputation points from their first interaction with 2key. It is also crucial for maintaining a secure network layout against a host of attack vectors, bot schemes, collusion networks etc.

Another way for participants to join the 2key network is through 2key's mobile apps, which act as full 2key nodes and also function as a dedicated and secure 2key wallet and an ID proxy to the same types of ID providers mentioned above.



2.5. In Depth

General Incentive Model For Online Sharing

WHY ARE WE BUILDING OUR OWN INCENTIVE MODEL?

The goal of every 2key contract is to find and reach its target audience.

A contract offering tickets to a music concert, for example, is created with the goal of finding and reaching the people who'll buy tickets to the concert. That's what the 2key network is for.

So each contract can be viewed a 'search task,' because the link is 'searching' for its target audience. From this perspective, each person who forwards the link is collaborating in this common search task of getting the link from its source to its target audience.

Because every person in the world is actually connected to every other person through a chain of acquaintances with no more than five intermediaries, the trick is to find the right six people, or less, to carry the link from its source to its destination.

To do this, people have to be motivated to forward each other links and use their judgement when considering who they're forwarding the links to. Lastly, people have to be motivated to continue forwarding the links they receive, until the links reach their target audience.

To motivate people in this way, we're building the 2key general incentive

model for online sharing. The first secret ingredient to creating strong incentivization to act is to reward each person individually, according to their own actions and contribution.

To do this, we're using 2key's multi-step tracking to precisely track and record each participant's individual contribution. When a result is achieved, the 2key incentive model is in charge of distributing the payment among all the participants who contributed to the 'search task.'

If we use the example of a contract for concert tickets again, let's imagine that it's been forwarded by four different participants until it reached a person who's actually purchased tickets. Should each participant be compensated equally? Should the last participant receive a greater percentage than the others? Or maybe the first participant?

The 2key incentive model is using game theory and AI to answer these questions in a way that distributes the rewards on the 2key network so that each participant is optimally motivated to contribute to the network's efficiency by forwarding the right links to the right people at the right time.

THE CONCEPT OF AN INDIVIDUAL REPUTATION SCORE

The model is based around the concept of a personal reputation score, which is assigned to each person upon joining the 2key network and then dynamically updated with each new campaign the person participates in.

The reputation score takes into account hundreds of different parameters. People who share links that lead to conversions strengthen their reputation scores, for example, while those sharing links that aren't forwarded weaken it. Reliability, general participation, token staking, steps to conversion and many other parameters all influence each person's reputation score.

In fact, each reputation score is made-up from a number of reputation sub-scores, in different domains of life. So that a participant on the network can have a high reputation for recommending classical music, and at the same time have a low reputation in recommending destinations for ski vacations. The taxonomy used for the reputation score is the IBM Watson (formerly AlchemyAPI) taxonomy of ~1.5K categories, which are divided into 4 layers of categories and sub-categories spreading into all domains of life.

2KEY'S ALGORITHMIC GAME THEORY BASED INCENTIVE MODEL

Assisted by world-leading scientists in algorithmic game theory, our team is building an incentive model that is both personalized and dynamic.

The percentage of the reward given to each participant when they participate in a successful campaign is highly dependant on the participant's individual reputation score. So participants have a strong incentivisation to keep their scores high.

Just like a person's reputation in life, 2key's reputation score keeps track of past actions and productivity, while at the same time being flexible and responsive to each new action taken by the participant. It is a form of 'social

credit,' which offers real tangible value to the person who accumulates it through their actions.

If you'd like to learn the technical details of our unique incentive model, please check out our incentive model technical document.

GAME THEORY AI

In parallel, we intend to develop a new branch of algorithms that fuse game theory with machine learning. We're assisted by world-leading scientists in algorithmic game theory in building a general incentive and compensation model for online sharing. Moving the web to a general proactivity incentive model is a big step, and requires developing a dedicated technological framework.

The lack of big-data sets on individual contributions to value-generation through online sharing has meant that game theory and machine learning haven't been fused so far.

The 2key network will produce the framework and datasets to enable the development of game theory AI models for online sharing and our vision is to lead the front in this field.

Section 3

2key Network



3.1.

2key Network Vision Outline

2key network combines three technological innovations to offer a new model for targeting online campaigns. The 2key model is based around people who share campaigns about stuff they like with their friends and acquaintances. Even though people naturally share links all the time, they don't do it in a coordinated way to achieve specific goals.

2key network aligns the interests of campaigners with the interests of the people who share and forward the links to their campaigns. In this way, every person who receives a link to the campaign will be incentivised to contribute to its success by getting the link to the right people.

On the 2key network, campaigns get from their origin to their audience through the people who share them. When a campaign achieves a result, it remunerates each participant individually for their relative contribution to the success of the campaign (i.e. remuneration for the service that each such individual participant provided). For example, if a campaign is shared in a specific referral chain between four people until it produces a conversion, each of the four people who shared it will be paid respective to various factors correlating the amount of payment to their relative contribution to obtaining the end result. This is very fair for the people who share, and very effective for campaigners.

The people who share a campaign are called 'referrers.' That's because the 2key network applies a reputation-based incentivisation system that encourages people to only share campaigns for stuff they know and believe in. Each participant's reputation score strongly influences their reliability and how much rewards they'll be able to get from each successful campaign. Each time someone shares a campaign, they're putting their own reputation on the line, because if others report them as spammers, their reputation will be damaged.

Businesses can use the 2key network to search for employees with specific skills or for investors with specific interests, online publications can use it to find new subscribers, artists can search for students interested in specialized art workshops, drug companies could find new test subjects with special conditions, the possibilities are nearly endless. The 2key network is a tool for finding the right people through collaboration and social connections.



3.2.

2key Network Technology Outline

The 2key network is a decentralized blockchain network, based on an infrastructure of smart-contracts on the Ethereum network and innovative layer 2 technology. The links themselves perform the referral and conversion tracking utilising cryptography, so that campaign costs are nearly eliminated. This allows to re-direct campaign budgets back to the people who share the campaign's links such that they can be incentivised for providing services helping campaigns achieve success.

The 2key protocol works behind the scenes to place entire campaigns on smart contracts and fuse these smart contracts to regular HTTP links. So that links are produced per campaign, containing all the details for its execution. Campaigners don't need any technological background to create campaigns in minutes, they only need to define their goals and allocate the amount of rewards they wish to invest in achieving them. 2key network takes care of the rest.

Each link on the network is also embedded with multi-step tracking technology which enables it to register on the link's front-end code each person who shared it. This means that each link on the network operates independently, tracking, recording and automatically remunerating each participant's contribution. When links achieve a conversion, they unlock

some of the payment embedded in the smart-contract and automatically distribute it among all participants who've shared them.

To optimize this system even further, we aim to optimise individual remuneration calculations among all participants. 2key is now leading the front in developing a general incentive model for online sharing based on game-theory and AI. The model combines thousands of factors to compensate each person precisely according to the value they've generated on the network across time, in order to promote participation while making sure that people use their intelligence to relay onwards reliable information to the people who are genuinely interested in it.



3.3.

A 2key Campaign Journey, Step-by-Step

STEP 1 - GENERATING A CAMPAIGN

A campaign begins with a campaigner, who creates a 2key campaign contract by defining the campaign's goals and remuneration for referrers. The 2key network

automatically creates a campaign link embedded with smart contracts and multi-step tracking technology, which enables them to carry the campaign out independently.

STEP 2 - SPREADING THE CAMPAIGN

The campaigner now shares the link to their campaign with the first group of people (friends, existing clients, colleagues etc.), who can now share it with other people, who can then continue to share it and so on. Until the link achieves a conversion. The entire chain of referrers who share the link is tracked and registered by the link itself.

STEP 3 - ACHIEVING RESULTS AND REWARDING REFERRERS

Once the link achieves results the smart contract automatically unlocks some of the payment set by the contractor and distributes it among the chain of people who shared and distributed the campaign towards the converter (the achiever of the results).

3.4.

Types of Players on 2key Network

There are four type of roles participants can play in the 2key network:

- **Contractors** Anyone can define a target and create a contract for achieving it on the 2key network. The network will seamlessly embed the contract within a 2key SmartLink that will carry it out independently.
- **Referrers** referrers are network participants who relay links originating from campaign creators to others who may be interested. They must employ judgement and relay the links only to people who may be interested in them or may know others who are. If the link reaches its target, everyone on that conversion chain will automatically get a share of the referral remuneration for that conversion.
- **Converters** converters are the potential destination address for the links. These are the potential customers, employees and other target audience, which the links aim to reach. When converters take action through the link, such as leave their details, make a purchase or download an app, the smart contract unlocks the reward and distributes it backwards to each person in the trail of people who are responsible for the link reaching the converters.
- **Integrators** Integrators are optional service providers on the 2key network. Contractors may choose to use their services to ensure transactions, uphold dispute resolutions, prevent abuse, provide KYC services and much more. We intend integrators to take a share of the rewards for successful conversions as payment for their services. 2key Ltd. will also act as an integrator on the network, probably the first, and we plan to provide competitive offers and remain the top choice for link creators.



3.5.

Types of Incentive Models on 2key Network

Campaigner will have the option of choosing the type of incentive model for their campaign out of the following three alternatives:

PRE-SET VANILLA MODEL

The campaigner can choose how to divide the referral remunerations for their campaign amongst referrers out of the following types of pre-set vanilla models:



Equal

Equal distribution among all participants in the chain



Equal + 3X

Equal distribution among all participants, except the last one who receives 3 times the rest



Growing

Each participant in the chain gets 50% more than the one before him



Manual

Choose how much to keep for yourself and how much to pay forward. .

DYNAMIC PARTICIPANT-CHOICE MODEL

This model each person who shares the campaign the choice of how much of the total available payment they wish to keep for themselves and how much they choose to pass on to others.

GLOBAL INCENTIVE MODEL BASED ON GAME THEORY AND AI

We're fusing game theory with machine learning to create the first general incentive model for online sharing. The model is designed motivate participants to use their energy, intelligence and social connections to relay links to people with interest in them and at the same time prevent spamming.

It does so by calculating individual remunerations for all those who shared a link that achieves a result individually, according to the relative contribution of each participant in the referral-chain.

The model takes into account dozens of parameters such as the position in the referral chain, relative result delivery-time, a referer's past references in this domain and, most importantly - each participant's calculated 'reputation score'.

The reputation score is dynamic, reflecting the productivity and relevance of each participant's link-sharing activity across time. Participants with high conversion rates will gradually improve their reputation scores, for example, while those sharing irrelevant links or spamming, will rapidly lose



reputation points.

When a link achieves a result, each participant will receive a percentage of the reward that's highly influenced by their reputation score, strongly incentivising participants to target wisely the links they share.

Read the technical details of this model [here](#).



3.6.

Real World Use-Case Examples

So what kind of things can people actually DO with 2key network? The following list offers a few examples:

- **Selling Tokens** Projects that have already issued their tokens can get the word out about their project and promote token acquisition.
- **Crowdfunding a Project** Any project looking for crowdfunding can create a campaign aimed at reaching investors and receive investment in Bitcoin or Ether.
- **Organizing and Carrying Out Airdrop Campaigns** The 2key network is perfect for creating hype around projects, getting the word out about upcoming airdrop campaigns and automatically organizing the distribution of tokens during the campaign.
- **Collecting New Leads** 2key network enables creating campaigns for collecting the details of people who are interested in specific products, services or events.
- **Getting New Subscribers** For those offering online publications or services based on subscriptions, 2key network can be used to expand their reach and get new subscribers.
- **Finding Patrons** Artists and creators can use the 2key network to share their gift with the world and find patrons to support them.
- **Selling Tickets to Events** Anyone organizing an event can use the 2key network to get people to know about it directly from their friends and sell tickets.

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- **Spreading the Word About a Cause and Receiving Donations** 2key network is perfect for finding people who'd like to support a certain cause and collect their donations.
 - **Launching a Petition** A 2key petition can be created to sign people up in support of different causes. Widely distributing the petition will be easy using the 2key network.
 - **Distributing Content** 2key network can be used to incentivise people to share specific content.
 - **Acquiring Valuable Information** Organizations can create 2key campaigns that reward people for filling in questionnaires and polls and get the information they need in no time.
 - **Boosting Installations** Any business that aims to increase the installations of their new app or game, can use the 2key network to get to increase the number of installations.
 - **Finding the Right Employees** Any business or organization can easily use the 2key network to search for precisely the employees they need.
 - **Selling Online Products** Different online goods can easily be integrated with a 2key contract and be sold through the 2key network.
 - **Sell Offline Goods** 2key network is also ideal for reaching customers for offline goods and enabling online transactions.
 - **Create a Competition** Businesses or others who'd like to encourage participation in all types of competition will be greatly assisted by using a 2key network contract to let people know about the competition and encourage participation.

Section 4

2KEY Token & Tokenomics



4.1.

Introducing 2key's Token Economy

Everything on the 2key network runs independently by the code embedded in the network's smart-contract infrastructure, 2nd layer HTTP based protocol and in the 2key tokens' code.

Basically, 2key tokens (2KEYs) are ERC20 tokens, built specifically as the 2key network's native utility currency. They're needed for all activities on the 2key network such as launching campaigns, remunerating participants, functioning as miners, staking as integrators, collecting fees etc.

The In the current age of social media people's reputation, connections and social impact have great potential value, yet this value is difficult to monetize. The 2key network offers a solution. It tracks each participant's sharing activities and can measure the number of conversion they lead to. According to this information, it then assigns each participant a dynamic 'reputation score,' which changes and improves as they share more campaigns with their friends.

The reputation score of each participant strongly influences their earning power on the 2key network. Basically, people with a higher reputation score

can earn more 2KEYs than people with lower scores. This architecture



means that people who positively contribute to the 2key network can gain more from using it. By tying together reputation and value in this way, our tokenomics provide an innovative solution for measuring and rewarding social influence.

4.2.

2KEY Token Utilities on the 2key Network

2KEY tokens are ERC20 utility tokens, used for all other activities on the 2key network. We'll mint a final number of 600 Million 2KEYs, to uphold and operate 2key's smart contract system.

They'll be used for the following activities:

- **Activating campaigns** - Contractors will have to purchase and lock 2KEYs in order to launch campaigns. These locked 2KEY will be utilized to insure the proper behavior of contractors (as they enjoy an a priori one-sided permission advantage which a stake on the balance can mitigate). The locked 2KEY will then be used to incentivise adherence to the rules of the campaigns and disincentivize foul play by contractors, as well as provide a budget for dispute resolution resolution as required. Contractors will also require to include within their campaign contracts the total amount of 2KEYs to be used as payments, for both referrers and integrators, which will only be unlocked whenever the campaign achieves results.
- **Purchasing rights to serve as referrers in campaigns** - 2KEY can also be utilized by programmatic referrers (e.g. ad-networks), to purchase the right to provide referral services, in campaigns which were enabled for

this by the contractor. This will allow bigger referral players to offer their services within the 2key Network.

- **Campaign level service payments:** referrers who serve the network by selectively sharing campaigns in a way which leads to results, will receive their payment in 2KEY.
- **Network level service payments:** participants of all types who provide valuable service to the network, by creating campaigns, referring, converting successfully, and providing other services or work helping the 2key Network to grow and blossom, will accrue participation reputation. A community remuneration mechanism will be used to periodically compensate active participants in direct relation to the reputation they have gained over that period.
- **Integrator fees.** 2key network integrators will receive fees for their services in 2KEYs. 2key, as a company, will offer its services as the base network integrator, and there will likewise be an option to any company willing and able to offer services for optimising campaigns, validating new types of conversions, validating converters in various contexts, aggregating contractors etc..
- **Network Tariff:** A tariff will be programmatically imposed by the smart contracts on any integrator fee made on the network. A small portion of that fee will be charged, in 2KEY, and sent to a deep freeze pool locked for 10 years, which will subsequently be used to replenish the community remuneration pool.
- **Integrator Stake:** Companies launching integrator services on the platform will require to stake 2KEY and reputation in order to be eligible to serve in campaigns. This will typically be a requirement to lock in 2KEY as a form of long-term commitment of the integrator to provide faithful

services. As integrators are for-profit service providers which have a fee-per-conversion business model network-wide, across all campaigns where they render their services, it's paramount to ensure that these will be honest and fair players, which will fulfill their services honestly. The lock requirements from integrators is similar in concept to the staking requirements from contractors, except that in the case of integrators these are network-level participants and thus the amount of damages and respective insurance amount in 2KEY is orders of magnitude greater than contractors which have atomic, per-campaign, responsibility.

- **POS Mining:** In the full protocol version, participants will be able to mine 2KEY in POS manner by enabling their browsers to be utilised for validating and syncing state in campaigns which they're not participating in. 2KEY stake will be required in such cases for a participant to be eligible to serve as miner, and respective to the state, so will be the probability to be chosen as miner.

4.3.

2key Token Distribution - Diagram



27% Economy Kickstart

21% Token sale, 6% Liquidation supply for exchanges

31% Participation Mining

20% Reputation Mining, 10% MPSN Mining, 1% Social Mining

16% Team

1 Year lockup, 2 years vesting afterwards.

4% Team Growth Fund

2 Year lockup

6% Advisors and Partners

vesting up to 24 months

16% Ecosystem Growth Fund

Future reserve locked for 2-6 years

4.4. In Depth

2key Token Distribution

- **Economy Kickstart - 27%(162M 2KEYs)**, which will be distributed in the following way:
 - **21% (126M 2KEYs): Token Sale** - will be sold to early adopters of the network. 2KEY official price at pre-sale and private-sale phases, before public trading commences, will be set at - USD0.06 (6 cents). The target USD worth of the sale is 6M\$. The sale will be ongoing until the public IEO date, after which 2KEY will open to public trading. Earlier adopters and adopters willing to pre-purchase larger amounts of 2KEY will accordingly receive offers for greater bonuses, depending on the status of the sale at that time. All tokens sold as part of the resale and private sale rounds will be subject a lockup schema as will be published by the project team towards the IEO date.
 - **3% (18M 2KEYs) will be used for liquidity depth** in the 2key exchange contract
 - **2% (12M 2KEYs) will be reserved for DEX** liquidity depth.
 - **1% (6M 2KEYs) will be used by the 2KEY official Market Makers** for their active liquidation operations.
- **Team - 16% (96m 2KEYs)**, which will be locked for 365 days, then distributed over a 2 year period in 25 equal portions vesting monthly.
- **Team Growth Fund- 4% (24m 2KEYs)** - initially locked for 2 years, will be utilised to fund the future growth of the team.
- **Advisors, Partners & Early contributors - 6% (36m 2KEYs)**. 3rd parties and

contractors, advisors and early contributors supporting the development, marketing, and growth of the 2key network. Up to 24 months vesting.

- **Participation Based Mining - 31% (186M 2KEYs)** will be used to compensate 2key network users for active participation and services to progress the network and its stability. 20% will be used for participation reputation mining (released over 10 years), 10% for Browser-based General-Purpose Multi-Party-State-Network mining (will be started once GP MPSN protocol is ready, around 24 months from economy launch as currently planned), and 1% for social mining (will be released over 12-36 months from economy launch date).
- **Long Term Fund - Ecosystem Growth & R&D - 16% (96M 2KEYs)**. tokens dedicated for future use, might be used in the future for conducting additional token distributions, and/or to continue funding the R&D of the project. Locked for 2 years, then releasing yearly over 4 years.



4.5.

2KEY Token Sale - Economy Launch

To jump start the economy, we're holding resale and private sale rounds for early adopters. 2key Network is designed as a distributed economy, and as such, requires an initial participant base and market cap to serve as the base - the sourcing seed in 2key terms - from which the economy will grow.

The economy launch phase will include a max quota for presale, private sale and public sale rounds. The base price of 2KEY in these rounds is planned at 0.06\$ (6 cents) for everybody. These early purchasers will then be able to use their 2KEY once the network launches, for creating 2key campaigns, purchasing rights to serve as integrators, making purchases or donations on the 2key Network and in the future also for applying as POS miners in the network and for purchasing rights to serve as referrers in campaigns.

The presale and private sale rounds will be conducted via 2key campaigns and the participants in these rounds might be eligible for price discounts depending on how early they participate and how much 2KEY they purchase. Any 2KEY token sale rounds facilitated via 2key campaigns will earn their participants with participation reputation, eligible for the community remunerations just like any other 2key campaign participants. And just like in any other 2key campaigns, participation reputation will vary according to the relative contribution of each participant (converters and referrers to the

overall results achieved in the campaign.

Participants in the token sale might be required to undergo KYC, AML procedures, according to regulatory compliance requirements as well as the stage of the token sale (private/public/ongoing)



4.6.

Reputation Economy Overview

2key network offers is a new way for measuring and remunerating social impact. Every participant forwarding links on the network can be viewed as a small- scale influencer and their degree of influence can be fully tracked and measured, based on the number of conversions their sharing leads to, in various categories of the campaigns being participated in.

This degree of influence is represented on the 2key network by each participant's 'referral reputation score.' There is also reputation score for contractors, integrators and converters, measuring their success and skill in serving the network's economy as these types of roles.

The referral reputation score is calculated according to a complex model, details of which will be published in a separate document. In general, a participant's reputation improves the more successful referral chains they participate in and the closer they are to the conversion itself. Reputation points are lost if a participant receives negative feedback such as being reported as spam or if is sharing simply leads to many dead-ends that don't result in conversions.

An important aspect of reputation on the 2key network is that it is highly specific. Small-scale influencers specialised in specific fields can be more effective than more well known 'general' influencers. Reputation on the 2key network will be based on a granular category taxonomy, divided into different hierarchical levels. This means that each participant on the network can accumulate reputation according to their specific area of expertise, experience and influence.

The 2key network remunerates participants' good reputation with real value. The token economy model includes various payment mechanisms for higher reputation scores. A participant with a higher reputation score will gain more tokens from each successful conversion, as well as receive various periodical network remunerations for maintaining their high reputation. This ensures a strong connection between a participant's reputation and their capacity to gain income from the 2key network.

Likewise, integrators, converters and contractors earn and lose reputation on the same granular category taxonomy, depending on the results, feedback and statistics of their services, either in generating and leading campaigns as contractors, or as service providers in campaigns as integrators, or as being successful converters. High reputation in those roles also relates to monetary benefits on the network, e.g. ability to charge higher fees as integrator, lower staking requirements for launching campaigns as contractor, higher exposure to join campaigns as referrer or converter etc..



4.7.

In-Depth: Earned reputation as the underlying asset of the 2key Network

In 2key Network, the community remunerations are distributed according to each participant's 'reputation score,' which reflects how much the participant has provided helpful services to the network in each payment period. Each act which constitutes a positive service to the network, will earn the user points e.g. successful referrals, committing and keeping 2KEY rewards in campaigns, generating campaigns with large stake, running long-period campaigns, providing integrator services etc..

Reputation is the underlying asset of the 2key Network, and having earned high reputation in a certain service provider role (contractor, referrer, converter, integrator) in a certain category, can lead to monetary benefits as discussed in sections above. Reputation is both global and local. Each participant in each campaign (as any role) starts with their apriori reputation, which becomes the base for the intra-campaign reputation - the reputation reflecting their contribution and acts within the scope of the specific campaign. This local reputation is later superimposed into the general reputation score for each participant.

Participating in the network by providing required services earns

users reputation, which can also translate to income, both on the atomic campaign level, and on the network level. On the campaign level each conversion earns the relevant referrers reputation and 2KEY income, while the reputation earned later accumulates as network level standing which measures how much that participant helped the network at large grow, which qualifies that user for the network level remuneration via the community compensation mechanisms.

To calculate the periodical network level remuneration, we are using the concept of Eligibility Score (ES). Eligibility scores are calculated each payment period (e.g. month), taking into account the three previous periods. For example, lets assume the payment period is monthly: The periods are marked as follows:

m0 = The previous month (previous 30 days from allocation date)

m-1 = The month before the previous month

M-2 = The month before M-1

At the beginning of September, for example, the eligibility score will take into account reputation from M0 (August), M-1(July), M-2 (June).

For each of the 3 months, the 2key network contracts will automatically calculate the gain/loss in Participation Reputation (PR) for that period, and calculate the Eligibility Score (ES) according to the following formula:

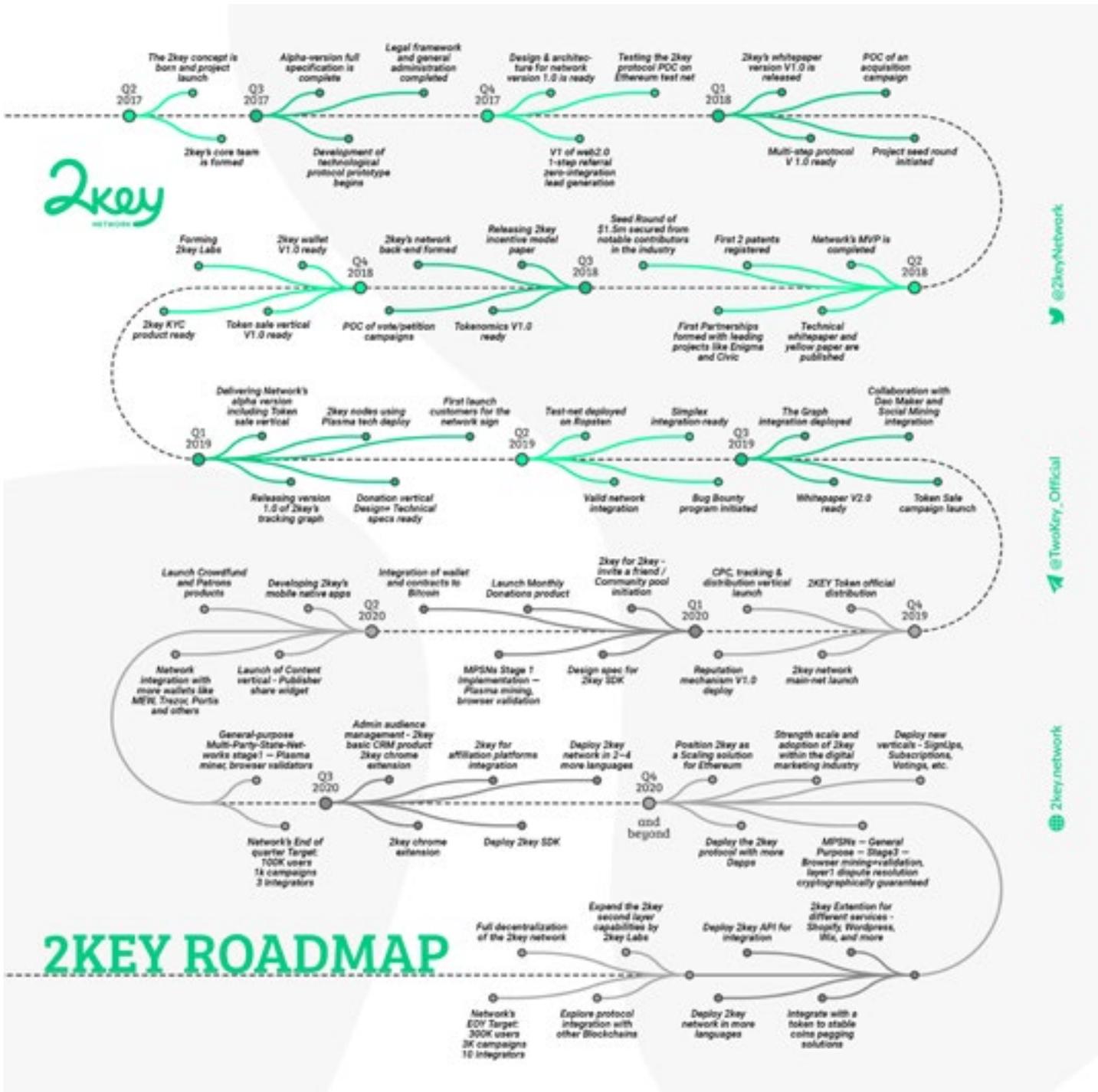
$$\mathbf{ES = PR[m0] + PR[m-1] * 0.5 + PR[M-2] * 0.25}$$

The network reputation remuneration pool will also be used for 2key network's self-marketing campaigns such as signups, installs and user onboarding campaigns, contracted by 2key.network itself. In these campaigns, participating converters and referrers will gain reputation and rewards for bringing in new active users to 2key network.

Section 5

Roadmap





@2keyNetwork

@TwoKey_Official

2key network



2key network is currently deployed on Ropsten test net live at <https://test.2key.io> and was publicly launched for early adopters in August 2019. After 3 weeks the network had more than 600 users, 200 active campaigns and about ~150 Active daily users. As of today, early October 2019, the staging platform has 1830 users joined last 30 days, 2817 total users, 112 contractor pages created last 30d and 274 total pages created.

As the platform is on test-net, the generated monetary value is on Test Ropsten ETH atm, yet the generated value from multi-step referrals and tracking is real, and so we've seen new user communities spring up on Telegram in [English](#) as well as dedicated groups in [Russian](#), [Turkish](#), [Philipino](#), Vietnamese. The language dedicated channels have sprung up only in the past month as the staging version went live for early adopters.

Looking at the traffic of new users which receive referrals and visit campaigns, we can also see a good early adoption for the first 30 days after launch:



In the meanwhile, since launch, we've seen the counts have increased:



The platform is planned to launch into the main-net and generate real campaigns with Main-net ETH revenues on Q4 2019 after we finish the 2key smart contracts auditings and other necessary security tests. Currently available on the app are token sale campaigns and donation campaigns.

Our next releases will support also CPC campaigns (to socially reward and distribute content), and web2.0 conversions campaigns (allowing any website or app to integrate 2key and socially reward and target any conversion they wish on their website/app).

The project is considered by the company to be at Technology Readiness Level 7, as the beta version is already running in an environment identical to production.

Section 6

Core Team



6.1. Core Team

2key is a global project, our team members are based in 7 countries spread over 3 continents, bringing together leading talents from the fields of blockchain and algorithms, finance, big data, machine learning, smart contracts, and game theory. Together, we're building the technology for a new future of sharing, one that incentivises collaboration, honesty and trust for the benefit of all.



Erez Ben-Kiki
Founder, CEO

Product design specialist, 8 years of experience in the financial industry



eiTan LaVi
Founder, CTO

Director of Data Science @Keewee, Head of NLP, Algorithms R&D @ Wochit



Udi Ben-Reuven
Chief Scientist

IDF cyber unit commander, co-founder @ Algotech, Senior architect @Checkpoint



Andrii Pindiura
Director of Engineering

Senior Tech Lead. Enjoys tackling engineering problems and design.



6.2. Advisory



Dr. Reshef Meir

Algorithmic Game Theory
Specialist at Technion -
Institute of technology.



Nimrod Lehavi

Founder and CEO
@ Simplex



Dr. Roey Tzezana

Author, Futurist



Guy Zyskind

Founder and CEO
@ Enigma



Stas Oskin

Wings Foundation
Co-Founder



Sebastian Stupurac

Wings Foundation
Co-Founder



Shai Mohaban

Blockchain Investor
and Advisor



Idan Lakritz

Token Economics
Specialist



Section 7

Legal Disclaimer

This whitepaper has been prepared by 2key New Economics Ltd., an Israeli company with registration number 515669463, with headquarters at 30 Yossef Karo St. Tel-Aviv, Israel ("We" and/or "2key" and/or "Company") and is for information purposes only and may be subject to change. We cannot guarantee the accuracy of the statements made or conclusions reached in this whitepaper and we expressly disclaim all representations and warranties

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- any representations or warranties relating to merchantability, fitness for a particular purpose, suitability, title or non-infringement;
- that the contents of this document are accurate and free from any errors; and that such contents do not infringe any third party rights.

We shall have no liability for losses or damages (whether direct, indirect, consequential or any other kind of loss or damage) arising out of the use, reference to or reliance on the contents of this whitepaper, even if advised of the possibility of damages arising.

This whitepaper may contain references to third party data and industry publications. As far as we are aware, the information reproduced in this whitepaper is accurate and that the estimates and assumptions contained herein are reasonable. However, we offer no assurances as to the accuracy or completeness of this data. Although information and data reproduced in this whitepaper are believed to have been obtained from reliable sources, we have not independently verified any of the information or data from third party sources referred to in this whitepaper or ascertained the underlying assumptions relied upon by such sources.

As of the date of publication of this whitepaper, 2key tokens have no known or intended future use (other than on 2key platform which is still under development).

No promises of future performance or value are or will be made with respect to 2key, including no promise of inherent value, no promise of any payments, and no guarantee that 2key will hold any particular value. Unless prospective participants fully understand and accept the nature of 2key's business and the potential risks associated with the acquisition, storage and transfer of ERC-20 tokens such as 2key tokens, they should not

participate in the token sale.

2key tokens are not being structured or sold as securities. 2key tokens hold no rights and confer no interests in the equity of 2key. 2key tokens are sold with an intended future use on 2key's platform and all proceeds received during the token sale may be spent freely by 2key on the development of its business and the underlying technological infrastructure.

This whitepaper does not constitute a prospectus or disclosure document and is not an offer to sell, nor the solicitation of any offer to buy any investment or financial instrument in any jurisdiction. 2key tokens should not be acquired for speculative or investment purposes with the expectation of making an investment return.

No regulatory authority has examined or approved any of the information set out in this whitepaper. No such action has or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this whitepaper does not imply that applicable laws or regulatory requirements have been complied with.

Participation in the token sale carries substantial risk and may involve special risks that could lead to a loss of all or a substantial portion of your purchase value. Further information about the risks of participating in the token sale is set out in the Token Sale T&Cs. Please ensure that you have read, understood and are prepared to accept the risks of participating in the token sale before sending a contribution to us.

Please note that the T&C may change from time to time, and be sure to read the updated T&C before making any purchase. If you have any doubt, question or something is unclear, please contact us on our TG group (linked from <https://2key.network>)

The token sale and/or 2key tokens could be impacted by regulatory action, including potential restrictions on the ownership, use, or possession of such tokens. Regulators or other competent authorities may demand that we revise the mechanics of the token sale and/or the functionality of 2key tokens in order to comply with regulatory requirements or other governmental or business obligations. Nevertheless, we believe we are taking commercially reasonable steps to ensure that the token sale mechanics and issue of 2key tokens do not violate applicable laws and regulations.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This whitepaper contains forward-looking statements or information (collectively “forward-looking statements”) that relate to our current expectations of future events. In some cases, these forward-looking statements can be identified by words or phrases such as “may”, “will”, “expect”, “anticipate”, “aim”, “estimate”, “intend”, “plan”, “seek”, “believe”, “potential”, “continue”, “is/are likely to” or the negative of these terms, or other similar expressions intended to identify forward-looking statements. We have based these forward-looking statements on current projections about future events and financial trends that we believe are relevant to our financial condition, results of operations, business strategy, financial needs, or the results of the token sale.

In addition to statements relating to the matters set out here, this whitepaper contains forward-looking statements related to 2key proposed operating model. The model speaks to our objectives only, and is not a forecast, projection or prediction of future results of operations.

Forward-looking statements are based on certain assumptions and analysis made by 2key in light of its experience and perception of historical trends, current conditions and expected future developments and other factors it believes are appropriate, and are subject to risks and uncertainties. Although the forward-looking statements contained in this whitepaper are based upon what we believe are reasonable assumptions, there are risks, uncertainties, assumptions, and other factors which could cause our actual results, performances, achievements and/or experiences to differ materially from the expectations expressed, implied, or perceived in forward-looking statements. Given such risks, prospective participants in the token sale should not place undue reliance on these forward-looking statements.

NOTE: THIS DOCUMENT PROVIDES AN INITIAL SUMMARY OF CERTAIN BUSINESS ESSENTIALS UNDERLYING THE COMPANY’S PROJECT. THIS DOCUMENT IS EXPECTED TO EVOLVE OVER TIME, AS THE PROJECT PROCEEDS, AND THE COMPANY TEAM MAY POST MODIFICATIONS, REVISIONS AND/OR UPDATED DRAFTS UNTIL THE FINAL DOCUMENT IS PRESENTED PRIOR TO THE DATE OF THE PUBLIC TOKEN SALE.

PURCHASE OF COMPANY TOKENS IS SUBJECT TO EXECUTION OF AN AGREEMENT WITH THE COMPANY OR TOKENS SALE TERMS AND CONDITIONS. CERTAIN OF THE TERMS AND CONDITIONS DESCRIBED HEREIN ARE SUBJECT TO QUALIFICATIONS, LIMITATIONS AND/OR EXCEPTIONS AS SET FORTH IN SUCH AGREEMENT AND/OR TERMS AND CONDITIONS.

THE SUMMARY CONTAINED HEREIN IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO THE ACTUAL TEXT OF THE FORM OF AGREEMENT AND/OR TERMS AND CONDITIONS PROVIDED BY THE COMPANY AND PROSPECTIVE PURCHASERS ARE REQUESTED TO CAREFULLY REVIEW SUCH DOCUMENTS.



RISK FACTORS

You should carefully consider and evaluate each of the following risk factors and all other information contained in these Terms before deciding to participate in the Token Distribution Event. If any of the following considerations, uncertainties or material risks develops into actual events, the business, financial position and/or results of operations of the Company and the maintenance and level of usage of the Tokens could be materially and adversely affected and the Tokens may have no utility or value.

DEFINITIONS:

1.1 **"Token Distribution Event"** means the initial transfer of 2KEY tokens by the Company, following the date hereof, to purchasers of 2KEY tokens who have paid for such 2KEY Tokens in the form of, including but not limited to, other types of Blockchain Tokens, such as ETH and BTC, or another cryptocurrency, cash or a combination thereof. Notwithstanding the foregoing: (a) any other future tokens agreements, pre-commitments and pre-sales of Company Tokens and (b) a transfer of Company Tokens for no consideration or in consideration for work or services provided to the Company or the Token Entity or any affiliate, in each case, shall not be considered a Token Distribution Event.

1.2 **"Blockchain Tokens"** means digital cryptographic tokens, typically virtual currency (also known as "cryptocurrency" or "digital currency"), that are implemented on a Blockchain. Blockchain Tokens may, but are not required to be, (1) transferrable on peer-to-peer networks, such as a Blockchain network, and/or (2) governed by rules regarding an inflation schedule or any starting quantity of initial supply, as well as any programmed rights or obligations set forth prior to launch and widespread circulation of said Blockchain Tokens.

1.3 **"Tokens"** means the Blockchain Token that the Company intends to develop and referred to as the "2key Token" or such other name that may be decided upon by the Company.

1.4 **"Available Information"** the website located at <https://2key.network> and any information contained within, and any information served from the 2key.network domain and together with the whitepaper, litepaper, technology abstract and other documents published on 2key domains, referred to as the "Available Information").

RISKS RELATING TO PARTICIPATION IN THE TOKEN DISTRIBUTION EVENT

There is no assurance of any success of the Company's Token Distribution Event or business platform that is yet to be fully developed as envisaged by the Available Information

The utility of the Tokens hinges heavily on the performance of the Company's Token Distribution Event and business platform that is yet to be developed and the continuous active engagement of its users and success of its contemplated business lines. There is no assurance that the Company's Token Distribution Event will be successful or that its business platform that is yet to be developed will gain or continue to gain traction.

While the Company has made effort to provide a realistic estimate, there is also no assurance that the cryptocurrencies raised in the Token Distribution Event will be sufficient for the development of the Company's business platform.

For the foregoing or any other reason, the development of the Company's business platform and launch of the anticipated Token functionality may not be completed and there is no assurance that it will be launched at all. As such, distributed Tokens may hold little or no worth or value.

The funds raised in the Token Distribution Event are exposed to risks of theft. The Company will make every effort to ensure that the token sale proceeds will be securely held. Further, the Company may make every effort to ensure that the funds received by it from Token Distribution Event will be securely held through the implementation of security measures. Notwithstanding such security measures, there is no assurance that there will be no theft of the cryptocurrencies as a result of hacks, sophisticated cyber-attacks, distributed denials of service or errors, vulnerabilities or defects on the Token Distribution Event website, in the smart contract(s) on which the Token Distribution Event relies, on the Ethereum blockchain or any other blockchain, or otherwise. Such events may include, for example, flaws in programming or source code leading to exploitation or abuse thereof. In such event, even if the Token Distribution Event is completed, the Company may not be able to receive the cryptocurrencies raised and the Company may not be able to use such funds for the development of the Company's business platform. In such case, the launch of the Company's business platform might be temporarily or permanently curtailed. As such, distributed Tokens may hold little worth or value and this would impact their trading price.

RISKS RELATING TO THE COMPANY

The Company's business platform that is yet to be developed. Any events or circumstances which adversely affect the Company or any of its successor or affiliated operating entities may have a corresponding adverse effect on the Company's business platform that is yet to be developed, including but not limited to the development, structuring and launch of the Company's business platform. Such adverse effects would correspondingly have an

impact on the utility, liquidity, and the trading price of the Tokens.

The Company may be materially and adversely affected if it fails to effectively manage its operations as its business develops and evolves, which would have a direct impact on its ability to develop, maintain or operate the Company's business platform and/or develop, structure and/or license any Token functionality

The financial technology and cryptocurrency industries in which the Company competes have grown rapidly over the past few years and continue to evolve in response to new technological advances, changing business models, shifting regulations and other factors. As a result of this constantly changing environment, the Company may face operational difficulties in adjusting to the changes, and the sustainability of the Company will depend on its ability to manage its operations, ensure that it hires qualified and competent employees, and provides proper training for its personnel. As its business evolves, the Company must also expand and adapt its operational infrastructure. The Company's business will in part rely on its blockchain-based software systems, cryptocurrency wallets or other related token storage mechanisms, blockchain technology and smart contract technology.

All of these systems, tools, and skillsets represent complex, costly, and rapidly changing technical infrastructure. In order to demonstrate continued ability to effectively manage technical support infrastructure for the Company's business platform that is yet to be developed and the future functionality of the Tokens, the Company will need to continue to upgrade and improve its data systems and other operational systems, procedures, and controls.

These upgrades and improvements will require a dedication of resources and are likely to be complex and increasingly rely on hosted computer services from third parties that the Company does not or will not control. If the Company is unable to adapt its systems and organization in a timely, efficient, and cost-effective manner to accommodate changing circumstances, its business, financial condition and/or results of operations may be adversely affected. If the third parties whom the Company relies on are subject to a security breach or otherwise suffer disruptions that impact the services the Company uses, the integrity and availability of its internal information could be compromised, which may consequently cause the loss of confidential or proprietary information and/ or economic loss. The loss of financial, labor or other resources, and any other adverse effect on the Company's business, financial condition and/or operations, would have a direct adverse effect on the Company's ability to develop maintain or operate the Company's business platform and/or to develop, structure and/or license the anticipated Token functionality. Any adverse effects affecting the Company business or technology are likely to also adversely impact the utility, liquidity, and trading price of the Tokens.

The Company may experience system failures, unplanned interruptions in its network or services, hardware or software defects, security breaches or other causes that could adversely affect the Company's infrastructure network, and/or the Company's business platform that is yet to be developed The Company is not able to anticipate when there would be occurrences of hacks, cyber-attacks, distributed denials of service or errors, vulnerabilities



or defects in: the Company's business platform that is yet to be developed, in the smart contracts on which the Company or the Company's business platform relies, or on the Ethereum or any other blockchain. Such events may include, for example, flaws in programming or source code leading to exploitation or abuse thereof.

The Company may not be able to detect such hacks, cyber-attacks, distributed denials of service errors vulnerabilities or defects in a timely manner, and may not have sufficient resources to efficiently cope with multiple service incidents happening simultaneously or in rapid succession.

The Company's network or services, which would include the Company's business platform that is yet to be developed and, if successfully structured, developed, licensed and launched, the Token functionality, could be disrupted by numerous events, including natural disasters, equipment breakdown, network connectivity downtime, power losses, or even intentional disruptions of its services, such as disruptions caused by software viruses or attacks by unauthorized users, some of which are beyond the Company's control. There can be no assurance that cyber-attacks, such as distributed denials of service, will not be attempted in the future or that the Company's security measures will be effective. The Company may be prone to attacks on its infrastructure intended to steal information about its technology, financial data or user information or take other actions that would be damaging to the Company and/or holders of the Tokens. Any significant breach of the Company's security measures or other disruptions resulting in a compromise of the usability, stability, and security of the Company's business platform that is yet to be developed may adversely affect the utility, liquidity and/or trading price of the Tokens.

The Company may in the future be dependent in part on the location and data center facilities of third parties. The Company's future infrastructure network may be established in whole or in part through servers which it owns and/or houses at the location facilities of third parties, and/or servers that it rents at data center facilities of third parties. If the Company is unable to renew its data facility leases on commercially reasonable terms or at all, the Company may be required to transfer its servers to a new data center facility, and may incur significant costs and possible service interruption in connection with the relocation. These facilities are also vulnerable to damage or interruption from, among others, natural disasters, arson, terrorist attacks, power losses, and telecommunication failures.

Additionally, the third-party providers of such facilities may suffer a breach of security as a result of third-party action, employee error, malfeasance or otherwise, and a third party may obtain unauthorized access to the data in such servers. The Company and the providers of such facilities may be unable to anticipate these techniques or to implement adequate preventive measures.

The Company or the Tokens may be affected by newly implemented regulations Distributed ledger technologies, businesses and activities as well as cryptocurrencies and cryptocurrency-related businesses and

activities are generally unregulated worldwide, but numerous regulatory authorities across jurisdictions have been outspoken about considering the implementation of regulatory regimes which govern distributed ledger technologies, businesses and activities as well as cryptocurrencies and cryptocurrency-related businesses and activities. The Company or the Tokens may be affected by newly implemented regulations relating to distributed ledger technologies, businesses and activities as well as cryptocurrencies and cryptocurrency-related businesses and activities, including having to take measures to comply with such regulations, or having to deal with queries, notices, requests or enforcement actions by regulatory authorities, which may come at a substantial cost and may also require substantial modifications to the Company's business platform that is yet to be developed and/or the anticipated Token functionality. This may impact the appeal or practicality or functionality of the Company's business platform that is yet to be developed and/or the anticipated Token functionality for users and result in decreased usage of and demand for the Company's business platform and the Tokens. Further, should the costs (financial or otherwise) of complying with such newly implemented regulations exceed a certain threshold, maintaining the Company's business platform that is yet to be developed and/or developing, structuring, licensing and/or launching the Token functionality may no longer be commercially viable, and the Company may opt to discontinue the Company's business platform that is yet to be developed and/or the anticipated Token functionality, and/or the Tokens. Further, it is difficult to predict how or whether governments or regulatory authorities may implement any changes to laws and regulations affecting distributed ledger technology and its applications, including the Company's business platform that is yet to be developed and/or the anticipated Token functionality, and/or the Tokens.

The Company may also have to cease operations in a jurisdiction that makes it illegal to operate in such jurisdiction, or make it commercially unviable or undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. In scenarios such as the foregoing, the utility, liquidity, and/or trading price of Tokens will be adversely affected and/or Tokens may cease to be traded.

There may be unanticipated risks arising from the Tokens Blockchain Tokens such as the Tokens are a relatively new and dynamic technology. In addition to the risks included in the above discussion of risk factors, there are other risks associated with your purchase, holding, and use of the Tokens, including those that the Company cannot anticipate. Such risks may further appear as unanticipated variations or combinations of the risks discussed above.

Disclaimer

The presentation of the Available Information is solely for informational purposes. Anyone interested in purchasing Tokens and participating in the Token Distribution Event should consider the various risks prior to making any kind of decision in respect of the Token Distribution Event. The Available Information does not comprise any advice by the Company or by the Company Representatives, or any recommendation to any recipient

of the Available Information, by the virtue of any participation in the Token Distribution Event or otherwise. The Available Information does not necessarily identify, or claim to identify, all the risk factors connected with the Company, the Company's business platform that is yet to be developed, the Tokens, the Token Distribution Event, any future Token functionality or the Available Information. All the participants must make their own independent evaluation, after making such investigations as they consider essential, of the merits of participating in the Token Distribution Event and after taking their own independent professional advice. Any participant in the Token Distribution Event should check with and rely upon their own investment, accounting, legal and tax representatives and consultants in respect of such matters concerning the Company, the Company's business platform that is yet to be developed, the Tokens, the Token Distribution Event, any future Token functionality and the Available Information and to assess separately the financial risks, consequences and appropriateness of the purchase of Tokens, or if in any doubt about the facts set out in the Available Information. A purchase of Tokens comprises considerable risk and might involve extraordinary risks that may lead to a loss of all or a significant portion of monies or monetary value utilised to acquire Tokens. Participants in the Token Distribution Event are urged to completely understand, be aware of and accept the characteristics of the Company, the Company's business platform that is yet to be developed, the Tokens, the Token Distribution Event, any future Token functionality and the Available Information. If you are not prepared to accept any or all of these Terms or the risks set out in these Terms then YOU ARE URGED NOT TO PARTICIPATE IN THE TOKEN DISTRIBUTION EVENT .

No guarantee or assurance is given by the Company or by the Company Representatives that the Company's proposals, objectives and/or outcomes set out in the Available Information will be achieved in whole or in part.

You are urged to consider whether participation in the Token Distribution Event is suitable for you having regard to your personal and financial circumstances and your financial resources.

No Offer of Securities or Registration The whitepaper does not constitute a prospectus or offer document of any sort and is not intended to constitute an offer of securities or a solicitation for investment in securities in any jurisdiction. No person is bound to enter into any contract or binding legal commitment and no cryptocurrency or other form of payment is to be accepted on the basis of all or any part of the Available Information. Any agreement in relation to any sale and purchase of Tokens is to be governed by the terms and conditions of such agreement and no other document. In the event of any inconsistencies between the terms and conditions of that agreement and the Available Information, the terms and conditions of the agreement shall prevail.

No regulatory authority has examined or approved of any of the Available Information. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of the Available Information does not imply that the applicable laws, regulatory requirements or

rules have been complied with. The Token Distribution Event and/or the Tokens could be impacted by regulatory action, including potential restrictions on the ownership, use, or possession of such Tokens. Regulators or other competent authorities may demand that we revise the mechanics of the Token Distribution Event and/or the functionality of the Tokens in order to comply with regulatory requirements or other governmental or business obligations.

