"Yeek": A Self-Policing, Trustless Gig Economy On The Blockchain

Sam Rahimi, Alex Ottens, W.B. Eugene

Author Bios

Mr. Rahimi is an experienced startup founder and a senior engineer. He came up with the idea of Yeek when he was short on cash one day and joined Fiverr, only to find out that nobody was willing to hire a new user without a bunch of reviews. After eating yet another box of Kraft Dinner he realized that a decentralized, crowdsourced arbitration system would eliminate the risk of fraud that plagues both workers and clients on existing Platforms.

Mr. Eugene invented online gambling back in 1995. Since then, he has been an investor and partner in numerous ventures, including the very first publicly traded marijuana company in Canada. Eugene first worked with Mr. Rahimi back in 2001 to develop an electronic cash system that was far ahead of its time.

Mr. Ottens owned a successful nightclub for 6 years in a town where 90% of eating and drinking establishments fail in their first year. He is also the owner of a profitable home renovation business and spends much of his spare time trading everything from real estate to cryptocurrencies. He is in charge of marketing and growing the community at Yeek.

Abstract

The Gig Economy has exploded in the 2010s, and represents the beginning of a major shift in society. Employees are leaving their jobs and taking control of their lives by selling their talents on a huge variety of online platforms: Uber and Lyft for the drivers, Upwork for IT contractors, Fiverr for small jobs of any variety, and Mechanical Turk for "microtaskers" who respond to simple, automated requests for knowledge and receive a few cents in return. Conversely, businesses of all sizes are moving away from traditional hiring and instead are outsourcing tasks to workers in the gig economy, saving them the expenses of employee onboarding, government taxes and fees, and benefits administration. As of 2018, it is clear that the gig economy is not just a passing fad and that it will continue to grow in economic importance in the coming years.

However, not all is perfect in this Brave New World: the centralized nature of today's most popular platforms leads to certain inevitable risks, inefficiencies, and limitations. The use of fiat currency makes all participants in the gig economy subject to the policies and fees of merchant banks that facilitate the flow of funds into and out of the economy (e.g. by credit card, PayPal, or bank transfer). There is also the security risk of handling and storing personal payment information. Users of a platform must trust that the platform is honest, and that deposited funds are segregated from the company's operating funds. Platforms often hang on to funds for longer than necessary by automating deposits but making withdrawals a manual process lasting several business days. Finally, the feedback-based reputation systems currently in use are insufficient, as they make it very challenging for new members of the platform (whether buyers or service providers) to attract business: because there is no trustless dispute resolution

model, the escrow systems in use do not serve to protect either party against a dishonest "bad actor" who is delivering poor quality or unfairly withholding payment.

The past few years have seen several Blockchain-based attempts to solve these problems through the creation of distributed, cryptocurrency-based platforms that automate at least part of the flow of commerce and add a degree of transparency not previously seen. However, the gig economy dApps currently in production fail to provide a fully trustless solution, relying on a rudimentary escrow system combined with reputation scoring and personal discretion to establish trust (for example, Latium). As previously stated, this makes buyers and sellers reluctant to deal with new members of the community who have not proven themselves through previous completed gigs.

We propose a distributed gig economy platform, "Yeek" that is truly distributed, automating all aspects of the flow of funds into, out of, and within the community via smart contracts that run on the Ethereum Blockchain. Community members will conduct business with Ethereum or the YEEK, an ERC20 token that serves dual purposes: it is a utility token for the Yeek Platform, and also the proof-of-stake by which operating revenue is distributed amongst all stakeholders in the form of quarterly dividends. A trustless dispute resolution system, like the rest of the platform, is controlled by Ethereum smart contracts; disputes are arbitrated by impartial community members who are paid to review submissions against the original gig requirements. This makes it possible to safely conduct business with a new, untrusted user as you are fully protected against fraud, delays, or unsatisfactory work.
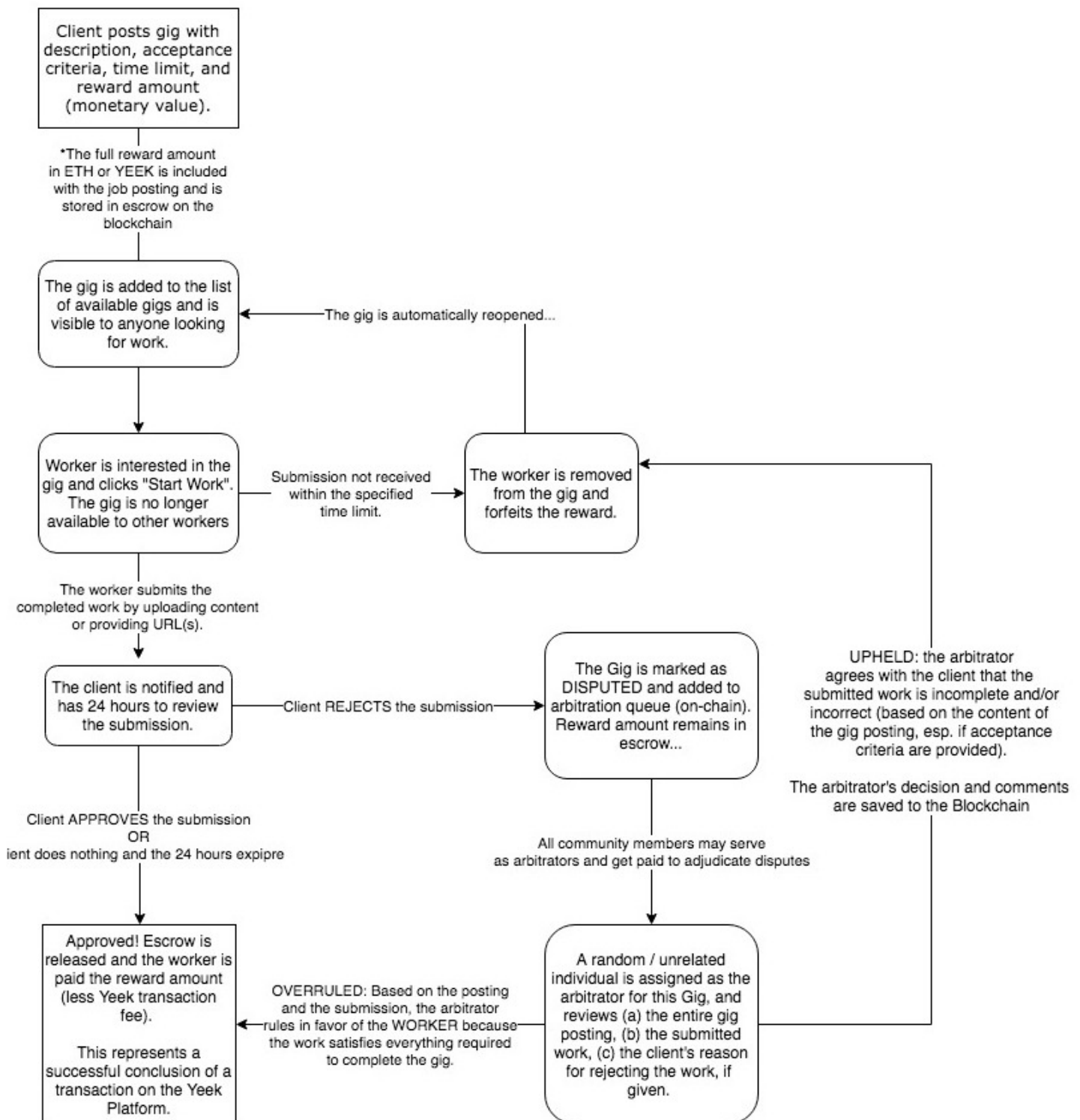
Market Need: Problems Solved by YEEK!

1. **Centralized gig marketplaces are subject to arbitrary policies, regulations, and content censorship , and government regulations.** YEEK! is a truly decentralized dApp on every layer. Payment, escrow, and dispute arbitration are handled by smart contracts that run in the Ethereum Blockchain; Web content and user-generated content (Gig postings and work submissions) are stored in decentralized file systems such as IPFS or Swarm, with their hashes stored in a smart contract for verification and transparency. Real time communication between members of the community will initially be handled using existing, secure communications networks such as Telegram; the long-term vision of YEEK calls for a transition to Whisper (the Ethereum-native distributed messaging protocol) as soon as the Whisper codebase is judged reasonably stable and complete.

2. **Using fiat currencies as a means of transaction is slow, insecure and expensive, and adds "major banks" to the list of outside entities with power to censor or shut down the marketplace.** The entire lifecycle of a YEEK transaction, from posting to payout, takes place on the Ethereum Blockchain, and smart contracts handle the near-real-time routing of payments, directly on the Ethereum Blockchain. Business is conducted using a utility token that represents a unit of value in the YEEK gig economy and allows the holder to share in the revenue generated by the platform. The token is ERC20 compliant

and works with common Ethereum wallets including the Metamask browser extension. YEEK Tokens will be traded on major exchanges, and the ICO is structured to ensure liquidity and promote price stability.

3. **Even the newer gig marketplaces that utilize cryptocurrency and a distributed architecture either ignore the "trust" issue completely or rely on user reputation to assess whether an unknown, untrusted counterparty is honest.** With the possible exception of Mechanical Turk-style "microtasks" of extremely low value and complexity, simple escrow systems on their own protect against only one sort of bad actor; while they ensure the availability of funds to pay the worker when a gig is posted, they do not address the situation where either (i) a worker completes a task, but the work is unsatisfactory, or (ii), the work *is* satisfactory, but the client pretends it is not, in an attempt to get out of paying for the services rendered. Certain existing platforms (even dinosaurs such as PayPal) contain a dispute resolution system - but in a centralized context, such systems become extremely slow and also arbitrary; disputes are generally adjudicated by (unidentified) employees of the platform, arbitrators whose decisions are naturally biased towards success for the business, not fairness for the parties involved.

The Yeek Platform applies a decentralized, crowd-sourced arbitration model to the problem of dispute resolution, and the result is a trustless alternative to reputation scoring that, for the first time, makes it truly safe to do business with anonymous counterparties in the context of the gig economy. And paid work is created for community members who help to resolve disputes, as shown in the Transaction Flow Diagram below.

Client posts gig with description, acceptance criteria, time limit, and reward amount (monetary value).

*The full reward amount in ETH or YEEK is included with the job posting and is stored in escrow on the blockchain

The gig is added to the list of available gigs and is visible to anyone looking for work.

The gig is automatically reopened...

Worker is interested in the gig and clicks "Start Work". The gig is no longer available to other workers

Submission not received within the specified time limit.

The worker is removed from the gig and forfeits the reward.

The worker submits the completed work by uploading content or providing URL(s).

The Gig is marked as DISPUTED and added to arbitration queue (on-chain). Reward amount remains in escrow...

UPHELD: the arbitrator agrees with the client that the submitted work is incomplete and/or incorrect (based on the content of the gig posting, esp. if acceptance criteria are provided).

The arbitrator's decision and comments are saved to the Blockchain

The client is notified and has 24 hours to review the submission.

Client REJECTS the submission

Client APPROVES the submission
OR
ient does nothing and the 24 hours expipre

All community members may serve as arbitrators and get paid to adjudicate disputes

Approved! Escrow is released and the worker is paid the reward amount (less Yeek transaction fee).

This represents a successful conclusion of a transaction on the Yeek Platform.

OVERRULED: Based on the posting and the submission, the arbitrator rules in favor of the WORKER because the work satisfies everything required to complete the gig.

A random / unrelated individual is assigned as the arbitrator for this Gig, and reviews (a) the entire gig posting, (b) the submitted work, (c) the client's reason for rejecting the work, if given.

Yeek! Platform - Technical Architecture

IPFS

Yeek Webapp - Core

Moderator Webapp

Key-Value DB

Ethereum Blockchain

Data Hashes

Gig Status

Escrow Service

Arbitration Queue

Business Model and Revenue Sources

The Yeek Platform will deliver profits to all stakeholders from day 1, thanks to the following revenue sources.

- **Transaction Fees**: A small, fixed percentage of each gig's value will be charged by the platform once the gig is complete and the money flows from client to worker. The exact value is not yet determined but will be competitive with other distributed marketplace applications and will be no greater than 3% in any case. We anticipate that transaction fees will become the primary revenue generator as the community size and transaction volume grow. Transactions fees are the most common way for a P2P marketplace to generate revenue and this revenue model has been proven by nearly all of the popular platforms, centralized or not; we assume you are familiar with this revenue model and will not discuss it further.

- **Paid Placement & Premium Features**: Clients will have the option to pay an extra fee to ensure that their gig is prominently displayed in listings and search results. The cost will vary based on supply (of premium listing slots) and demand for this inventory. While the revenue generated from paid placements will likely be small at first, it will play an increasingly important role as the number of open gigs grows large enough that workers see only a fraction of what's available. Furthermore, this model allows greater flexibility in terms of what can be sold in the Marketplace: while Yeek target specific segments of the online Gig Economy in its marketing, the platform itself will not place these sort of restrictions on content, allowing for the posting of *offline* gigs, products, services where no money is attached to the post and the transaction is settled face to face (similar to Craigslist or Kijiji). In the event that the community grows in this direction, causing transaction fee revenue to be lower than expected, this type of paid promotion will take on a much greater importance than originally anticipated. For example, Craigslist charges to post ads in certain popular *categories*, while Kijiji lets users pay to boost their ad's placement in search results or increase the visual appeal of their ad so it stands out.

- **Software-As-A-Service**: The crowdsourced dispute resolution system will be made available in API form to 3rd party platforms who require this functionality but do not wish to build it themselves or to grow their own community of arbitrators (or moderators, depending on the use case). Customers will pay a fee for each item added to the Yeek arbitration queue that covers the payment to the

arbitrator plus a small additional charge. This will allow us to profit from the

transaction volume of our already-established customers even in early days when

the Yeek community is relatively small.

- ○ We will consider entering into consulting and support agreements with
  API customers or anyone else that wants to integrate Yeek's functionality
  into their own apps. Yeek itself is 100% open source; however, there is
  significant revenue potential from customizing the software to meet
  customer requirements.

ICO, Token, and Roadmap

As a truly distributed and decentralized application, Yeek! will be raising startup capital

and distributing tokens to early adopters through a global ICO. 2 million YEEK tokens will be

sold, to hand-picked investors in the presale, and to the general public in a crowdsale. As there is

not a traditional corporation behind Yeek, there are no shareholders in the traditional sense.

**However, revenue is shared with YEEK token holders in the form of quarterly dividends.**

This gives the token an intrinsic value and ties that value directly to the growth of the Yeek

Platform.

It should be noted: Yeek is *not* a Democratic Autonomous Organization (DAO) - as the

project grows, the founders will expand the Yeek team by hiring employees, and it is this team

that makes decisions on product direction and business strategy. Team members will receive

salaries in exchange for doing the work needed to bring the vision of the founders to life, grow

the community, and support our customers. We will be posting at least 50% - 75% of our labor

needs in the form of gigs on the Yeek Platform, gigs that can be done by any member of the community; however, major operational decisions will continue to be made by the core team for the foreseeable future. In general, permanent staff will function as product & project managers, and be responsible for posting the work that needs to be done, recruiting contractors to join the platform and do the work, and reviewing the work when it is submitted.
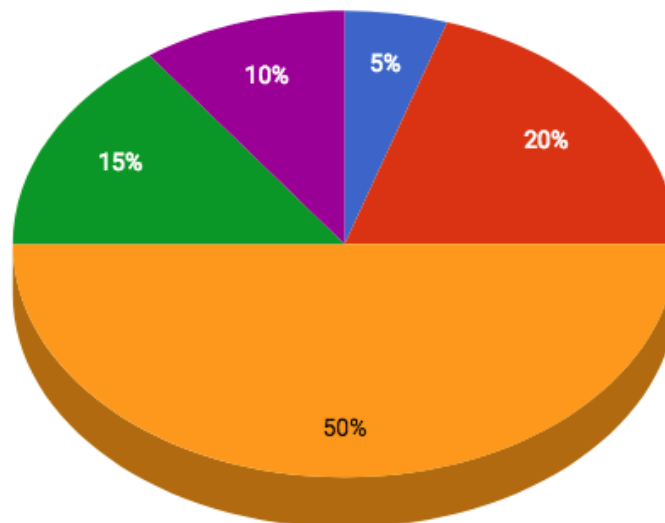
Allocation Of Crowdsale Proceeds

● R&D - Yeek Team   ● R&D - Gigs*   ● Arbitrator Rewards   ● Marketing & Promotion   ● Liquidity Support Reserve
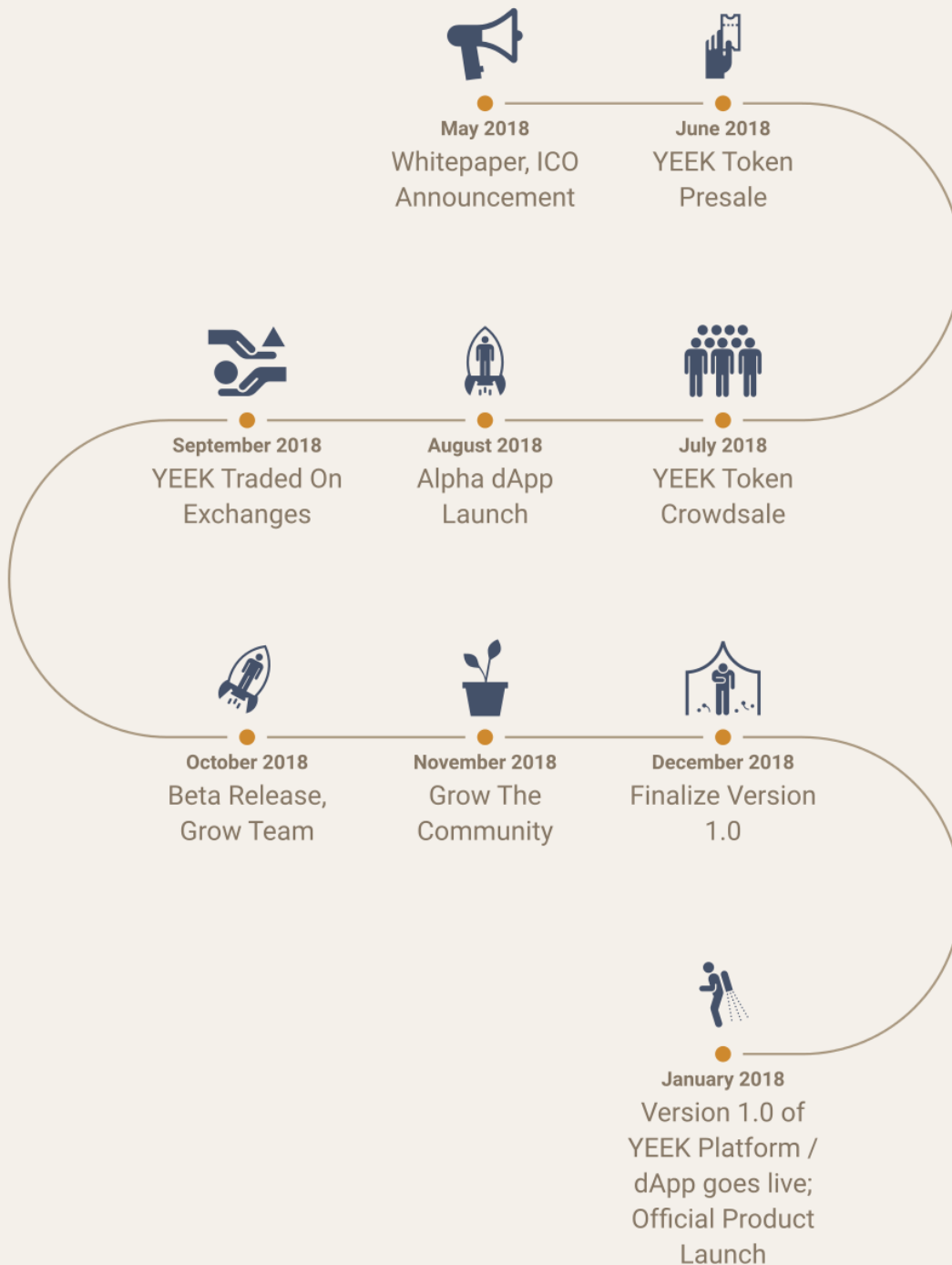
- 20%
- 25%
- 5%
- 35%
- 15%
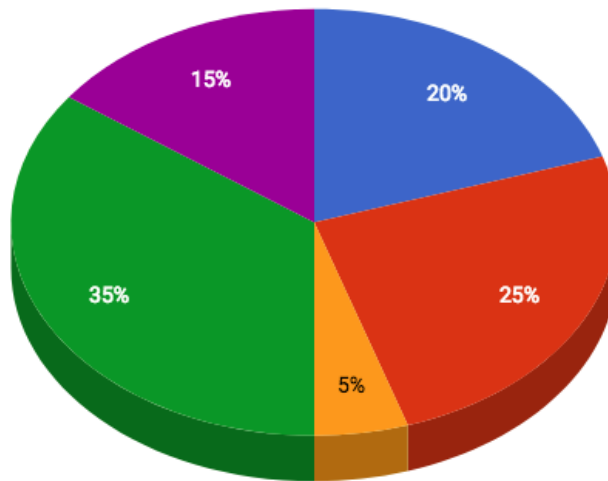
YEEK Token Allocation

● Airdrop & Influencers   ● Presale   ● Public Crowdsale   ● Liquidity Reserve   ● Yeek Team

- 5%
- 20%
- 50%
- 15%
- 10%

YEEK! PROJECT ROADMAP

dApp Platform & Utility Token Release Schedule

May 2018
Whitepaper, ICO Announcement

June 2018
YEEK Token Presale

September 2018
YEEK Traded On Exchanges

August 2018
Alpha dApp Launch

July 2018
YEEK Token Crowdsale

October 2018
Beta Release, Grow Team

November 2018
Grow The Community

December 2018
Finalize Version 1.0

January 2018
Version 1.0 of YEEK Platform / dApp goes live; Official Product Launch

Token Facts

Type	ERC20
Technology Stack	Ethereum Blockchain Smart Contract
Mintable	No (Fixed Supply)
Initial Token Supply	2,000,000
Decimals	18
Symbol	YEEK
Purpose	Means of exchange for P2P payments and moderator rewards on the Yeek Platform
Intrinsic Value?	Holders receive quarterly dividends* paid in ETH
Exchange Traded?	Yes*

ICO Facts

Base Price	0.001 ETH = 1 YEEK
Minimum Purchase	100 YEEK
Maximum Purchase	500,000 YEEK
Presale Begins	May 15, 2018
Presale Token Allocation	400,000
Presale Discount	60%
Presale Soft / Hard Caps	None
Presale Eligibility	Whitelist Only (Angel Investors, Friends and Family)
Presale Ends	June 14, 2018
Crowdsale Begins	June 15, 2018
Crowdsale Token Allocation	1,000,000
Soft Cap	50,000
Hard Cap	None
KYC	No
Payment Methods Accepted	ETH
Token Delivery Mechanism	Automatic - Tokens dispensed by smart contract
Crowdsale Ends	September 15, 2018
Unsold Crowdsale / Presale Tokens	Will be burned at the end of the Crowdsale

Airdrop	Yes; 50,000 YEEK will be given away to Influencers
Airdrop Begins	June 1, 2018

* The dividend per token is calculated as: (Transaction Fee Revenue - Arbitrator Payouts) / # Tokens In Circulation for the previous quarter. Dividends paid on tokens held by the Yeek organization will be invested back into the platform and cover operating expenses, salaries, etc.

* The YEEK token will be submitted to all major exchanges that handle ERC20 tokens during summer, 2018, and we anticipate being listed on several of them prior to the end of the Crowdsale

Future Directions and Open Questions

[todo]

References

[todo]