Workchain

Decentralized freelance-platform

workchain.sale
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1 Background

Bitcoin's emergence in 2009 created a new world that encouraged the movement of decentralization enthusiasts and the idea of leaning towards the open ledger. The concept behind Bitcoin proved to many there was no longer a need for central banks, beginning the movement towards "decentralization."

Ideas of the movement quickly accelerated in 2015. The launch of the Ethereum Blockchain and the introduction of smart contracts enabled all developer to create a new genre of decentralized applications which many refer "dApps." These nextgen apps are based on the idea of the blockchain allow for secure and trustless asset transfer.

As a part of the Ethereum network, many apps simply eliminate the need for centralized middlemen from many business models.

When in Winter of 2017, Bitcoin and Ethereum hit all-time highs with 1 BTC surpassing $18,000 USD which pushed the overall market capitalization of cryptocurrencies to hundreds of billions of dollars. Cryptocurrency is trending as everyone enjoys an ever-increasing adoption rate from investors worldwide.

Peer-to-peer sharing economy applications made after Upwork and Freelance.com have achieved unprecedented success in the past few years. These platforms extract high commission fees from their users in order to operate.

Thanks to Ethereum smart contracts, we can build a truly decentralized and automated sharing economy platform where both employers and contractors feel save and have massive opportunities to earn more. No middlemen and 0% commissions allows this perfectly balanced self-regulating system to exist naturally.

2 Executive summary

WORKCHAIN is decentralized freelance platform, in which employers and freelancers meet. This is a completely independent decentralized system where contractors and employers can work together and enter into trustless smart contracts with reputation and money in escrow. We are trying to be transparent and create exciting opportunities for people all over the world. It is our main imperative to create trustworthy relationships between our users. Thus, all parties, moderators included, have strong and aligned initiatives to act honestly, since

everyone has something of value at stake, as well as something to gain if the desired outcome is achieved.

3 Info about the market we plan to disrupt

For Freelance/Gig work, the numbers for Europe are 8.9 million. Research also shows that India's independent workforce is 15 million. The data regarding the US is also quite impressive with numbers hovering way above the 53 million mark.

The amount of people busy in this field around the globe globally in the vicinity of 77 million. Because there is no other publicly-available data for other countries, we may assume that this is the actual percentage that can be applied to all developed countries.

The global distribution of freelancers is as follows:

Asia	11,3%
Europe	29,3%
North America	50,7%
Australia	3,3%
Africa	1,4%
South America	4,0%

According to the "Freelancing in America: 2017" survey by the Freelancers Union, based in New York City, and the giant freelancing platform Upwork, the market of freelancing keeps growing on a regular basis.

The breakdown of freelance work in terms of earnings for 2017 is as follows:

Writing and translation	$109 million
Design and Multimedia	$83 million
Finance and legal	$33 million
Technology jobs	$486 million
Admin Support	$110 million
Mobile	$71 million
Sales and Marketing	$49 million

The Freelancers Union represents over three thousand members. Freelancers now make up 35% of U.S. workers and collectively earned $1 trillion in the past year.

The data in this research shows that the volume of the industry has exceeded the $1.5 trillion line in the North America only. Slightly more than a half of all NA freelancing workforce is concentrated in the US (50.7%), and the total national market size exceeds $715 billion.

These are very impressive numbers that make it really interesting how the whole industry is developing. Here are only a few factors to why that is the case:

- Our main enemy – automation – steals more jobs than catastrophic events and destroy opportunities for all of us;
- The blockchain breakthrough opened the floodgates for innovation, of which we have seen only the beginning;
- Freelancing over the web is something that nearly all people around the world can do in order to improve their financial situation;
- Smart-contracts and decentralized technology remove the risks and intermediary costs related to working remotely;
- The world has become much more interconnected than ever before;
- Finally, everyone can enter into self-enforcing, trustless agreements with anyone, where code is law.

While centralized dispute solving is not ideal, and is often less than objective, it is what generates more business overall as compared to there being none at all. We are creating very good conditions for resultative negotiations and help people to find a common ground.

Such problems often arise when a certain problem cannot be solved due to inability to objectively judge the outcome of the contracted work. In scenarios like this, people will have easier times resolving their conflicts with a system controlled by a community. Centralized sites provide arbitrage when there is a dispute, and that is the biggest added value.

While everyone can find freelancers or jobs for free by contacting the other side directly. Just a few sites capture all of this market currently. Due to effective usage of internet forums or gathering places and centralized freelance sites you can add value. Be proactive:

- Help to create an interconnected database of employers and contractors;
- Enjoy working and providing escrow and superior conflict solving.

This is significant added value, but has several disadvantages:

- 10% to 30% (in rare cases) of the job value goes to the intermediary;
- Your funds are not always immediately released by the intermediary;
- There are limited ways to have your funds sent to you; it is especially cumbersome in developing economies;
- Disputes are solved by single entities, which, by definition, cannot be objective.

The centralized sites solve this nicely. The freelancer gets the money from escrow if he delivers, and loses reputation if he doesn't. The concept we propose costs 0% to 1% depending on the case, as well as all that goes back to the system and token holders in various forms to align the initiatives of all sides involved. This is a very promising concept that can change the landscape of this industry and create exciting new opportunities for everyone.

As a bonus, no trust is required at any stage. No single entity has the power to affect the system on its own. The small fees collected are used to sustain the system by aligning initiatives, and none are wasted as profit for a central authority that adds no value.

One of the proven ways for humans to act justly is to have a reward if they behave honestly, while also having something at stake that can be lost if they behave maliciously. Such initiatives will arrive due to the involvement of multiple independent but enthusiastic professionals who are ready to push the envelope.

Is there a solution?

One of the sides has to place trust upfront. Either the employer fronts a percentage of the money, or the freelancer fronts some of the work. If they disagree later on, there is no practical way to resolve the dispute.

You can always hunt for a freelancer on your own online, and deal directly without intermediaries; however, then he has nothing to lose but his reputation if he simply abandons the project. While reputation is valuable, it's hard to track when no central platform is used. Furthermore, it's easy to start with brand new identity when working over the Internet.

There are interesting possibilities to resolve the issue:

- Using ethereum self-executing smart contracts to set both sides responsibilities in code;

- Aligning the economic initiatives of all parties involved so that they are all better off if they pursue the same outcome;
- Providing a decentralized system of compensated moderators based on game theory to step in IF necessary, and provide objective resolutions on the principle that the majority is always right;
- Tokenizing reputation and giving it monetary value. We make economic and reputational initiatives the same thing.

4 How does it work?

Freelancers can create listings presenting their services and push them on the network using a web client. On the backend, we use IPFS (interplanetary file system) to keep and distribute their listings on a peer-to-peer basis. No servers needed. Many operations will be conducted on the cloud which is a big plus.

All token holders enter into a smart contract where:

- The employer has the contract value locked in smart contract-based escrow;
- Pre-agreed amount of reputation tokens are staked from each side. Each listing has a predefined amount of reputation tokens that needs to be staked in order to enter into smart contract based agreement with. The listing creator sets that value meaning that cooperating parties must uphold or object the announced value and abide by it;
- Predefined timeframe upon which if none of the following outcomes have been met, it self-releases everything back. That is just a safeguard to prevent funds from being indefinitely locked.

In the beginning, we might need to run our own nodes to boost that, while the network gains enough traction to take care of it on its own. People who need high quality work done must be interested in creating a healthy ecosystem where different personalities can easily mesh together.

There might be a need for insignificant fees to publish a listing in order to prevent spamming the network. It will be negligible if using the system as intended, but it will add up to non-insignificant cost if spamming. If there is a need to implement that, all of the income will be distributed proportionally to the token holders.

Workchain tokens (WCH) are distributed via several channels:

- You can easily purchase the currency at its face value depending on the price in the free market. This will give you chances to improve reputation and continue to be a pillar of the community;
- Taking jobs on the network and will also provide you with special tokens meaning that your position is constantly improving if you are doing your job correctly.

Regardless of the scenario, the participants have invested valuable resources (e.g. time or money) to gain, so it is valuable to everyone including token owners and free contractors and thus, they have initiative to keep it. Even if you don't really care about the time, the reputation token has monetary value on the free market. The creator of the listing, will be the judge and jury when it comes to deciding whether other participants are eligible to get into a smart contract. So, he has the freedom to decide based on the overall contract value and his personal risk assessment.

There are 3 potential ways of the development of such smart contract:

The first possible outcome. Both parties are happy because they execute the contract on their own, no 3rd party is involved. Both are rewarded with reputation tokens depending on the contract value.

The second outcome. One of parties is unhappy. Then, a pool of moderators steps in and decides in favor of one of the sides depending on the community voting.

The third outcome. When both parties are against the continuation of the cooperation, the team moderators will decide how the outcome of the collaboration is valued.

Outcome 1: both participants of the contract are satisfied

When two parties both agree that the work is finished as intended, 99% of the contract value in escrow goes to the freelancer. The remaining amount is used to buy rep tokens automatically at market prices. This is done to distribute them equally to the employer and freelancer. This gives 0.5% of the value of the contract to each side in WCH tokens.

There is a certain loss if the participant is not using the system. This loss is roughly 0.5%. The freelancer gets 99% of the contract value in ether and 0.5% in WCH tokens, which he can sell if he prefers money over reputation. So, he is about 0.5% short.

That is his cost to use a system where he is protected and can be found by employers. The employer will get his part of the intended 1% as a cash back. This slight imbalance is intended to incentivize employers to stay within the system meaning that the environment is healthy and interesting for everyone.

This system has two distinctive advantages:

- Each participant receives reputation points based on the value of the project;
- The demand for tokens is promoted heavily. The demand for the token is necessary because this is fundamental for value. If there is no token value, the freelancer won't have anything valuable at stake. This means that contractors are always motivated and have enough reasons to continue providing high quality services.

Outcome 2: if one party is not satisfied with the result, a dispute can be initiated

All moderators are involved in the case and must have enough value at stake to participate in resolving the issue. The queue for moderators is conducted automatically. Every moderator can stake at minimum 5% reputation tokens of the predefined stake value in the job listing. However, the amount at stake cannot exceed 20%. The employer, freelancer, and pool of moderators all have the same total reputation at stake and can easily solve the problem.

All moderators collectively need to have the stake amount at stake.

Moderator can be anyone who hold enough WCH tokens to cover the stake minimum. A stake minimum is necessary to prevent sybil attacks where someone creates lots of mods with just one WCH token each in order to dominate the moderator pool and decide in his favor.

The creator of the listing is responsible for setting the amount at stake in order to open the case for moderation. The minimum moderation stake is 5% from that, based on the size of the stake the costs of sybil attack can grow to high numbers effectively preventing them. The max stake of 20% is necessary to ensure that the smallest team of moderators (at least, five) participate in every case. That is needed to make the decision more objective and less likely to be manipulated.

Once enough moderators have entered the pool, so that their collectively staked WCH tokens are equal to that of the other parties, the moderation process starts. We will be participating in moderation as well in order to eliminate the possibility of cases where there are not enough moderators participating. Also, 8% of the tokens that we leave for ourselves will be used for initiatives.

Each moderator has a vote weight of one, regardless of how many rep tokens he stakes. If the vote was weighted proportionally to their staked rep tokens, just 2 "whale" moderators could be enough to solve any dispute. However, what they earn from solving the dispute is proportional to their rep at stake.

This creates a fair balance where people with higher stakes at risk will earn more for their trouble. This also incentivizes fairer judgement. Proper moderation ensures that all participants receive enough to cover their hassles. To top it all off, this is another initiative for people to hold tokens as it enables them to be active participants of the moderation process.

The winning by simple popularity (51%) means that the rep at stake of the losing side is distributed proportionally to the moderators depending on the level of their participation in the process. Moderators who voted with the majority (the winning decision) get rep tokens which is a fair system. On the other side, people who lose the voting do not receive anything and have to donate their share of the stake to the winning side.

The logic is that, since they tried to rule unfairly against him, but he turned out to be right, he deserves some rep. What is fair is decided by the vote of the majority. The idea behind the structure of the moderation system is that everyone will be incentivized to act fairly.

We can't simply force odd number of moderators, since some of them may fail to vote, and we still get an even number. If the moderator failed to vote during the specified period dedicated to voting, he will be punished monetarily. This will eliminate non-active mods automatically. People who are losing the rep constantly will be banned from moderation. If the moderator votes are at odds, only then the system looks at the tokens behind the votes to decide the majority.

In this case, there is no need to use 1% of the contract value to buy rep tokens when you need them since they are awarded as described in case 1. The 1% can be fairly distributed amongst all token holders as a reward for holding onto WCH tokens meaning that they incentivize the growth of the value. This is a necessity that drives the system.

The demand for the token must be kept at a high level because for token holders the main incentive is to earn. Another important incentive is to keep moderating. The supporters of the ecosystem are rewarded when it is put to good use and manages to resolve a conflict of interests. The disadvantage is that the winning side loses 1% to the system itself.

An argument in favor of this is that if the disputed cases are with no fee, and there is fee for the ones completed without dispute, there is initiative for people to go through disputes to save the fee. This is virtually a moderation fee that should be paid in order for things to go smoothly. Since this is the only thing the winning side pays, and it is getting additional rep tokens from the minority-decided mods which might or might not outweigh the fee.

The outcome can be summarized in several key pivots:

- The winners of the voting get the contract value from escrow, the stakes are distributed amongst all participants as described;
- The losing side loses only his staked rep and nothing more meaning that the system simply awards the just judgement;
- The majority of moderators who participated in the voting receive their shares;
- The losing side is losing its stakes.

Outcome 3: both parties are not satisfied

If the contract is finished but both parties are not happy with it, they can simply ditch it and take their rep back without any consequences. Another way is to let it expire and it will do the same automatically. This prevents the possibility to have funds locked indefinitely in any of our contracts.

5 How moderators earn money

If your staked tokens represent 10%, you get them back plus another 10% from the losing side. This amount goes to only the winning side meaning that if you voted with the majority, your percent actually increases. You can more than double your staked rep tokens by regularly moderating and judging fairly. Since every side has the same amount of tokens at stake and you get proportionally the tokens of the losing side.

This is a system where examples like the following are possible: the rep tokens needed at stake are 100. There are 10 moderators in the moderator pool each donating to the stake amount 10 rep tokens. Your tokens represent 10% of the pool. 70% of the moderators have voted for one of the sides, 30% for the other. You have won the vote.

Since only they get tokens, we now have 70 tokens among which to proportionally distribute the losing sides' tokens. Your 10 tokens now represent roughly 15% of the amount. So you get exactly 24.28 tokens as a return on your initial 10 tokens stake. It is a huge 142% profit. However, if you are losing, you are not receiving anything.

6 Marketing

We realize that you might have the best product, but it can still fail because no one knows about it. It's especially tricky for projects in which users are the content. You have the problem of a closed cycle. It is hard to imagine that employers are interested in a place where freelancers don't show up. The same goes for the opposite side. Even if they do, and don't find it valuable shortly, they might never return.

Since the value of the token comes from its utility, and there is utility only if there is an actual network, marketing the project and achieving critical mass quickly is of utmost importance. You need a critical mass of both employers and freelancers at the same time for this to work. You have two very different target groups, which you must acquire at the same place and same time.

There is a good plan in motion that we are currently developing. We want to ensure that this is a working strategy. This will include the following channels all at the same time:

The First Stage. This is a point when we are targeting mostly the crypto world and freelance work. That is not an ultimate reach, but it is quite good. The quality over quantity is the most important emphasis on this stage. There are several important directions that we are going to focus:

- Reddit ads on all subreddits for getting jobs for crypto. Going for the reddit audience is a small but high quality reach;
- Facebook ads targeting only people in crypto-related and freelance-related Facebook groups. This is a very important stage of targeted promotion and we will focus on it heavily;
- Linkedin campaign targeting anyone who is involved in crypto and has skill set in demand;
- AdWords campaign focused on those searching for crypto- and freelance-related stuff.

This will attract people who are interested in the token economy and want to learn what token is all about. This has a huge reach, but not targeted at all. However, everyone from those is involved in crypto meaning that they can become active employers. This is basically an investment in the future and makes sure that people are informed about their opportunities.

- Buying mentions from crypto enthusiasts with great folowship;
- Various paid promotions and publications on crypto news sites;
- Bounties and other incentives for everyone who completes contracts and creates listings in order to promote the system.

The Second stage. It's exponentially harder to make users re-visit a new service that they once tried and didn't like. Only after inviting robust ecosystem of crypto-oriented freelancers and invested employers will we start marketing to the "mainstream" audience.

While crypto currency users are more eager to try out new stuff, mainstream users are not. That's why we want to have a pool of freelancers and employers before targeting the mainstream audience. It's hard enough to make them switch from their comfort zones to this new product, so we want to have the marketplace active before even trying. With enough people invited through different outlets, we will have a good shot at making the system truly glorious.

As of right now, the plan consists of targeting several key directions:

- Google Adwords campaign with 1000s of long tail key phrases relevant to both active freelancers and employers who need high quality services. Having 1000s of long tail phrases allows for greater effectiveness of each paid click and creates for us more opportunities.
- Optimizing FB ads will also give us a good benefit. We will try to optimize them based on the budget dedicated to the CTR promotion. We will try to get as much as possible on early stages of campaigning. We will target fans of relevant freelance pages.
- Linkedin, but this time, it is not limited to crypto freelancers, but all freelancers who are interested in expanding their audience.
- Mainstream media channels relevant to freelancing and searching for jobs online.
- Professionally designed and conducted YouTube campaigns consisting of potentially viral videos.

7 Token distribution

70% of the tokens will be sold during the pre-sale and ICO. Only ethereum will be accepted during the sale and pre-sale.

20% of the tokens will be kept for the marketing (read above).

8% of the tokens will be kept for the team.

About 2% of the tokens will be constantly held for bounties and economic initiatives. We may switch to giving out tokens to reward participants who are ready to be proactive. In case of insufficiency of moderators, we can dedicate some funds to support the moderation process in early stages. We are also determined to create permanent bounties for finding critical bugs and weak links the smart contracts and the network.

The total token supply depends ONLY on how much ether has been invested during the pre-sale and sale. New tokens will NOT be generated EVER again.

8 Roadmap

Q4 2017-Q1 2018	▪ Concept development ▪ First marketing researches ▪ The earliest version of the product ▪ Token Sale preparation
Q2 2018	▪ Workchain first release ▪ Tokens emission, unlocking and distribution
Q3 2018	▪ Workchain Smart Contracts ▪ Product MVP

	▪ App for AppStore and Google Play
Q4 2018	▪ Product fully developed
	▪ Marketing and PR activities

9 Team

Adam Hinkley
CEO & Chief Architect

Ryan Bloore
Talent Acquisition Executive & CMO

Laura Harris
Workforce Executive & Chief Design Officer

Tiffany Biddle
Growth Strategist & VP of Marketing
Jeremy Flight
CTO

Janna Rogers
PR Manager

Anfisa Tukhvatutullina
Analyst

Jade Bingham
Director of Partnerships

Gareth Wardle
Product Manager

10 FAQ

What is the utility of the WCH token?

It depends on what role you have in the network. Freelancers with more reputational tokens will have more chances to land a good contract. Hence, more money in his pocket. Also, he needs them to be able to enter into smart contracts with employers since he needs to stake some of them.

Token holders effectively receive revenue share of all system profit proportional to their tokens. At the same time, we will focus on creating a healthy system where expectations are exceeded by the reality.

Employers need them to be able to hire people since he needs to stake the same amount the freelancer does.

Finally, moderators need them to be able to moderate, since he stakes proportionally as well. By moderating, he earns more tokens and works more often thus increasing his overall gains. This ensures that he can make money via proper moderation.

What is the purpose of the WCH token?

It's a token that has actual utility, outside of being used as payment method needlessly replacing ether. The thing is all payments in the network are done with ether. The token itself represents reputation. The latter has monetary value and can be traded when needed. There are various ways to spend your rep: for staking, aligning initiatives, moderating, taking job offers and just holding to slowly build a capital proportionate to earnings of the whole system.

How does Workchain make money?

Founders will be awarded 8% of the tokens. This is a way of aligning our economic initiative with development of the whole ecosystem. The network has a 0% to 1% fee which ensures that it constantly grows and expands.

Who will buy the tokens?

- Freelancers actively seeking for new platforms;
- Employers who need high quality services;

- People who will be active moderators and earn money this way;
- Interested enthusiasts of the idea and crypto in general.

How will employers use the market?

Some of them will constantly search/browse various gigs and seek for new talent while others will be publishing their offers and create separate listings.

How freelancers will use the market?

Some freelancers will be using their skillsets to earn a fair hourly rate while waiting for people to find/hire them. Some will be creating gig listings with specific tasks they would do for set amounts and wait for employers to make an order. The last way is to actively search/browse employer's offers and apply for them. They will have an options to browse for favorite jobs.

How I can start working as a moderator?

People only need to have a prerequisite amount of rep to make bids on the moderation case. If you have enough, you will be eligible. Every creator of an offer can choose his own stake requirement. You need to stake 5% to 20% of the amount.

How much will I make as a moderator?

Constantly win cases and grow your balance indefinitely until you think that you have enough. There is no cap to your earnings.

Can I use my rep tokens somewhere else?

You won't be able to purchase something with them, but you will definitely have an opportunity to exchange them for cash whenever you feel like doing so.

Does it mean that if I use Workchain, I don't have to pay fees?

Employers don't get to pay anything extra. In fact, you will get a 0.5% back in tokens. Freelancers, on the other hand, lose anywhere from 0.5% to 1%.

Why is it possible?

The team that we are implementing this project is working in the field of remote work of employees since 2006. We have a huge versatile experience in business and strong professionals.

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