



**Ethereal**  
**No Limits.**  
**Just Business.**

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peer to peer freelance system

WHITEPAPER

version 1.0

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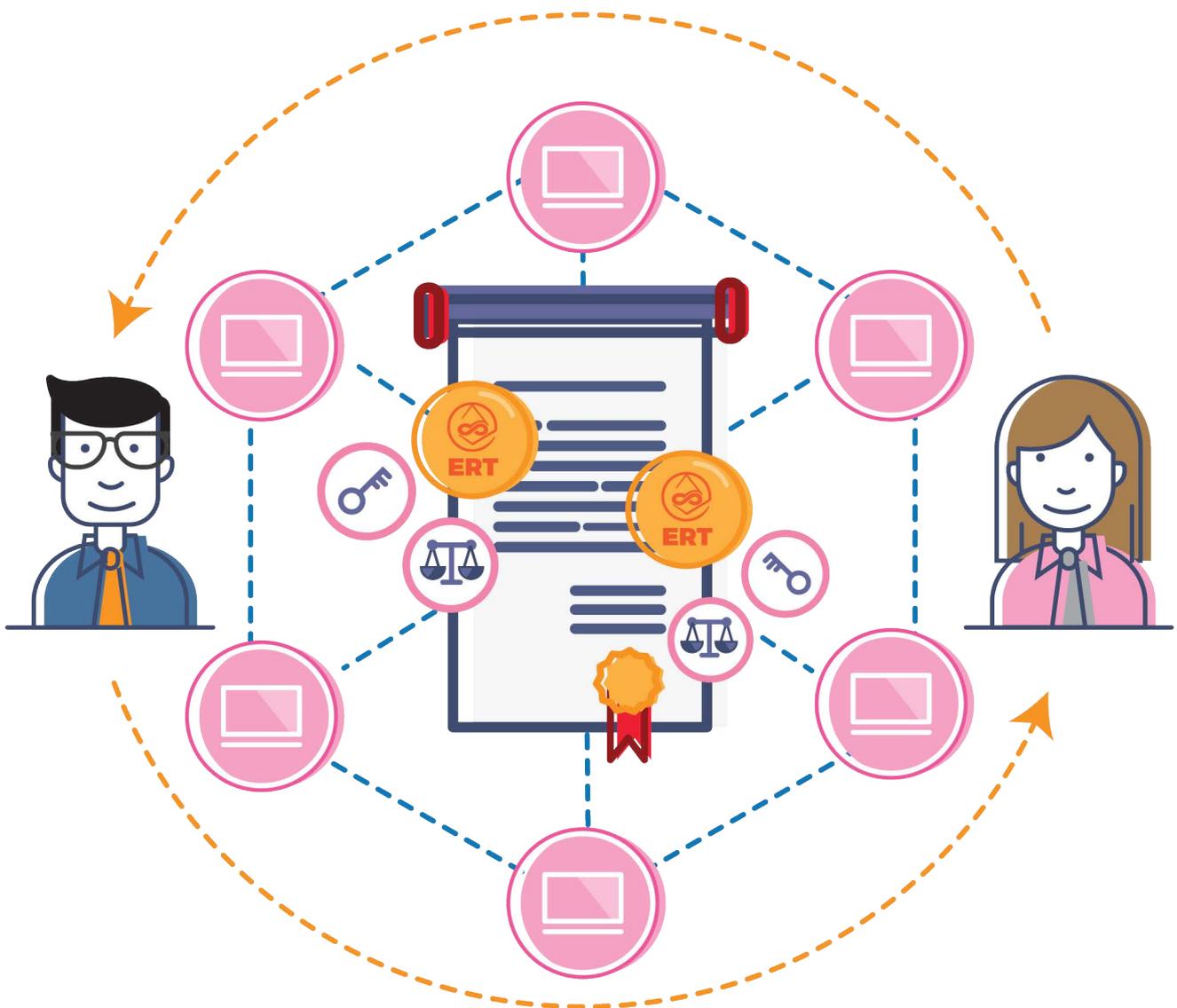
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# 1. EXECUTIVE SUMMARY

Ethernal is peer-to-peer (P2P) freelance system, in which employers and freelancers meet, enter into trustless smart contracts with reputation and money in escrow, and take advantage of a decentralized system of moderators, if needed. We collide reputation and economic initiatives into one by tokenizing reputation and giving it value. 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.

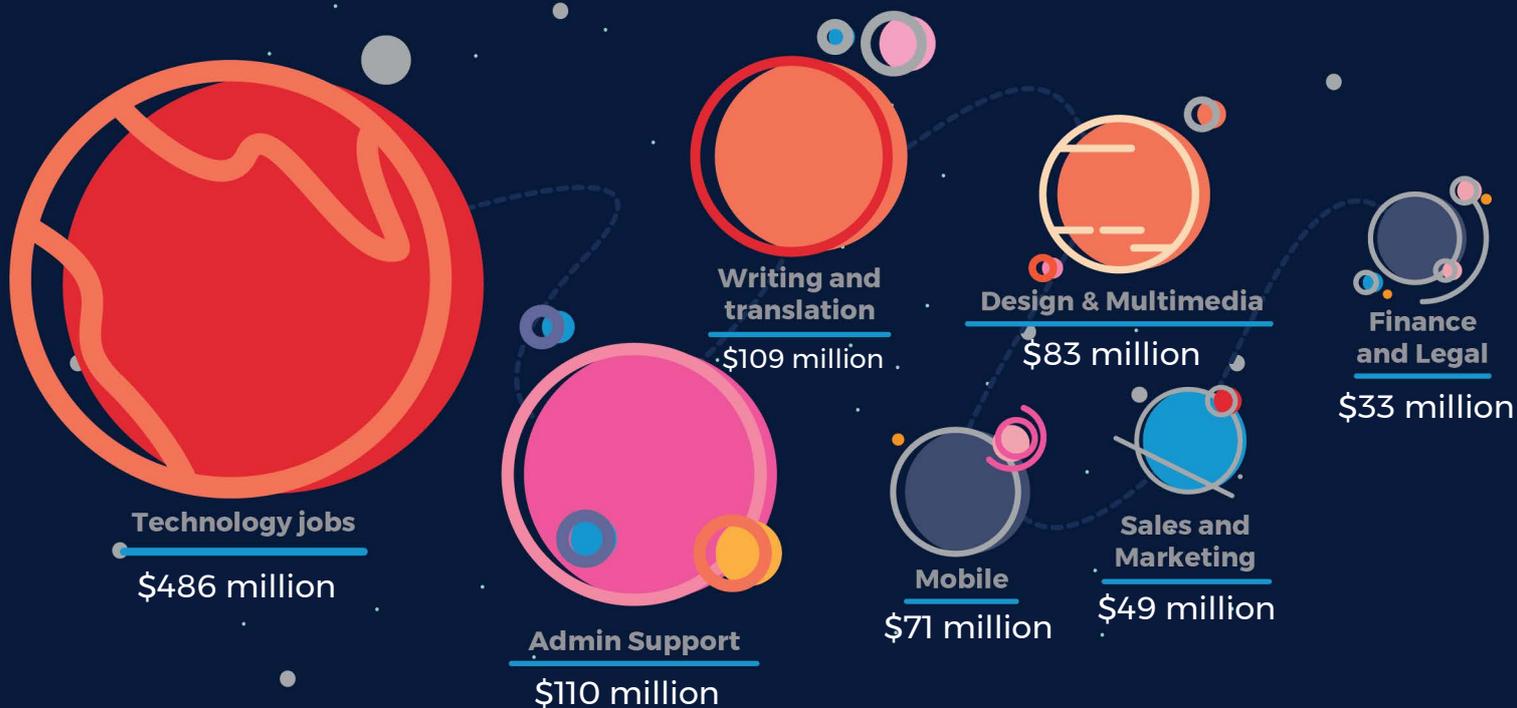


## 2. INFO ABOUT THE MARKET WE PLAN TO DISRUPT

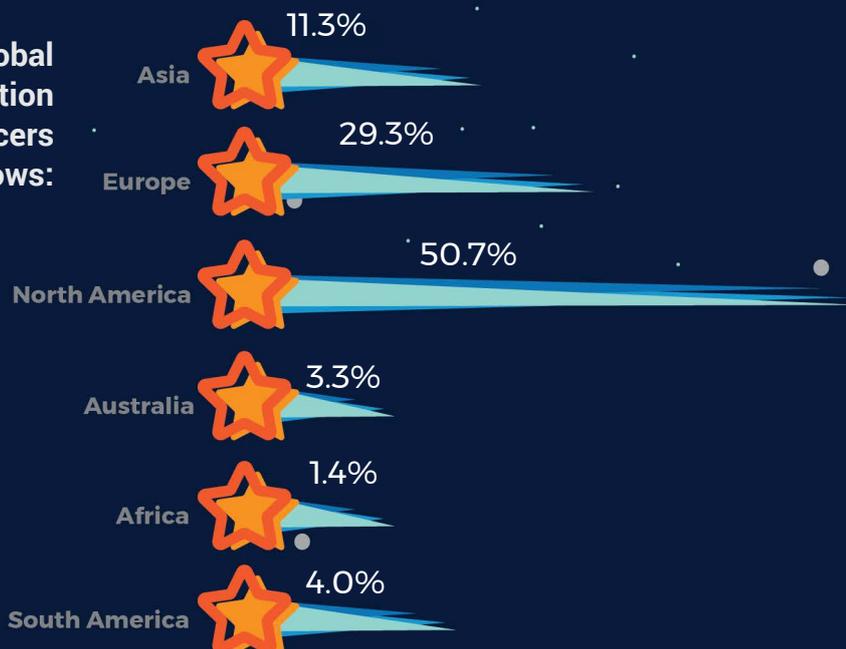
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The breakdown of freelance work in terms of earnings for 2014 is as follows:

"Freelancers now make up 35% of U.S. workers and collectively earned \$1 trillion in the past year, according to the "Freelancing in America: 2016" survey released this morning by the Freelancers Union, based in New York City, and the giant freelancing platform Upwork, headquartered in Silicon Valley. The Freelancers Union represents 300,000 members." - *Forbes*



The global distribution of freelancers is as follows:



## 2.1. NUMBER OF FREELANCERS (GLOBAL)

“For Freelance/Gig work, the numbers for Europe are 8.9 million. Research also shows that India’s independent workforce is 15 million. With regard to the United States, the Freelance Union’s “53 million” report states that the number of freelancers in the U.S. stands at 53 million. This puts the total number of formally identified freelance workers globally in the region of 77 million. Because there is no other publicly-available data for other countries, this number reflects a percentage of the global freelancer workforce.”

## 2.3. ESTIMATED GLOBAL MARKET SIZE

“This research estimates the total market size of the freelance/gig industry as in excess of **\$1.5 trillion** based on the US and Canada accounting for over half of global distribution of freelancers, in the North American market (50.7%), and the total US market size exceeding \$715 billion.”

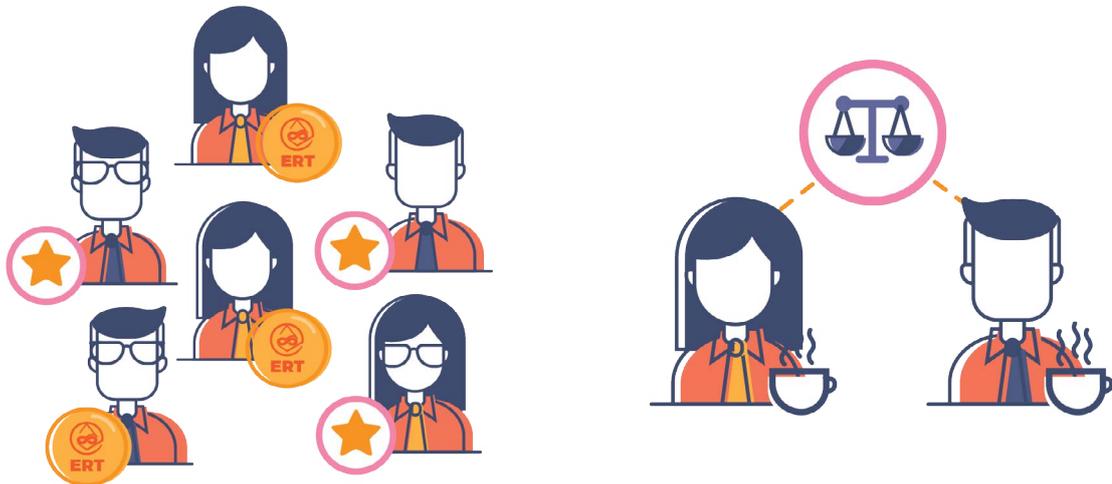


Just a few sites capture all of this market currently. While everyone can find freelancers or jobs for free by contacting the other side directly using various internet forums or gathering places, centralized freelance sites add value by providing the following:

◆ Easily browsable and searchable pool of talent and employers.

◆ Peace of mind by providing escrow and dispute solving.

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Disputes in this kind of business arise more often than one would expect. Complicated projects or subjective ones, like designs, are often hard to agree on. Centralized sites provide arbitration when there is a dispute, and that is the biggest added value. 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. By providing peace of mind to both sides, they are more likely to engage.

**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.

Now we have the technology to provide this value for free or nearly free. 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. As a bonus, no trust is required at any stage. No single entity has the power to affect the system on its own. Furthermore, not a single cent goes back to the developers (unless they hold tokens of course). 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. When there are multiple participants, those initiatives should be aligned in the same direction for all parties involved.

The centralized sites solve this nicely. The freelancer gets the money from escrow if he delivers, and loses reputation if he doesn't. But this comes at the aforementioned cost and inconveniences.

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.

Also, 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.

**WE PROPOSE  
A SOLUTION TO THIS  
PROBLEM BY:**

**Using ethereum  
self - executing**

**smart contracts to set both  
sides responsibilities  
in code.**



**Tokenizing reputation  
and giving it monetary value.  
We make economic and  
reputational initiatives  
the same thing!**

**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.**

**Aligning the economic  
initiatives of all parties  
involved so that they are all  
better off if they pursue  
the same outcome.**

*Sources used for the  
market data:*

*<https://www.forbes.com/sites/civicnation/2017/09/28/meet-the-town-that-inspired-free-community-college-in-califor>*

*<https://advancedconsult.files.wordpress.com/2017/05/example-3.pdf>*

### 3. SO HOW DOES IT ALL WORK?

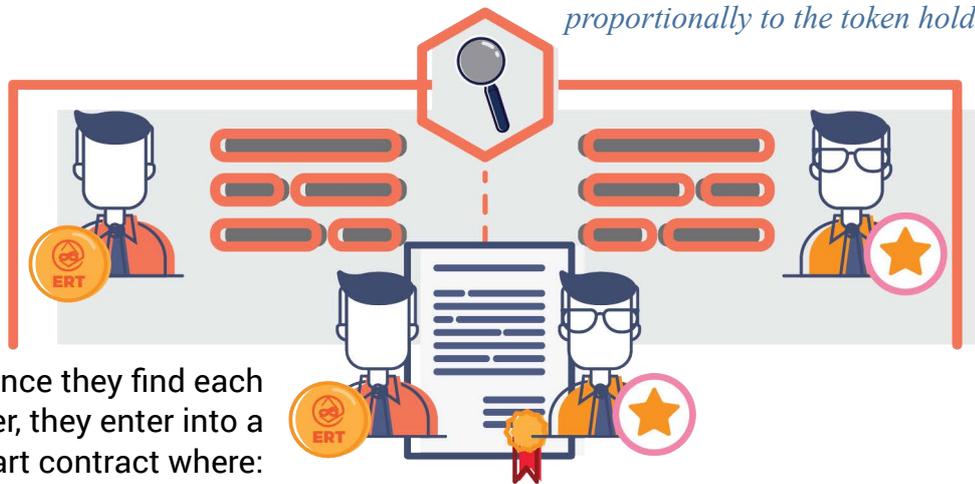
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Freelancers can create listings presenting their services and push them on the network using a web client. On the backend, we use IPFS (interplanetary file system) to keep and distribute their listings on a peer-to-peer basis. No servers needed. They don't have to keep their web client online; the offers just live in the cloud.

*Note: 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.*

Employers can search all of the listings from the same web client, or publish their own offers searchable by the freelancers.

*Note: 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.*



Once they find each other, they 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. Both sides have to stake the same amount. The side taking the listing needs to accept that condition and stake the required amount of reputation tokens.
- ◆ 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.



## ETHEREAL REPUTATION TOKENS (ERT) CAN BE EARNED IN TWO WAYS:

- ◆ Directly buying them on the free market. That way, anyone can start right away and avoid the egg and chicken problem of new freelancers who need reputation to get contracts, but need contracts to get reputation.
- ◆ Taking jobs on the network and being rewarded reputation tokens upon successful completion.

In both cases, the participants have invested valuable resources (e.g. time or money) to gain that reputation, so it is valuable to them, and thus, they have initiative to keep it. Even if they don't appreciate their time, the reputation token has monetary value on the free market.

The creator of the listing, being a gig or job offer, decides how much reputation stake to require for entering 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 POSSIBLE OUTCOMES OF THIS SMART CONTRACT



#### OUTCOME 1

**BOTH PARTIES  
ARE HAPPY**

They execute the contract on their own, no 3rd party intervention is needed. Both are awarded reputation tokens proportional to the contract value.

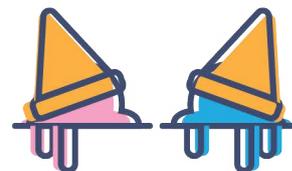


#### OUTCOME 2

**AT LEAST ONE  
PART IS UNHAPPY**

A pool of moderators steps in and decides in favor of one of the sides based on simple majority vote.

*The tricky one is only case 2 since only it needs involvement of 3rd party decision. The other outcomes can be solved by the participants themselves.*



#### OUTCOME 3

**THEY ARE NO LONGER WILLING  
TO WORK TOGETHER**

The contract thus self-closes after preset amount of time and returns everything in escrow and at stake.

## OUTCOME 1: BOTH PARTIES ARE HAPPY



If both parties agree on the successful execution, 99% of the contract value in escrow goes to the freelancer. The remaining 1% is used to buy rep tokens on the free market (automatically by a smart contract) at market prices, and distribute them equally to the employer and freelancer. This gives 0.5% of the value of the contract to each side in ERT tokens. This serves two purposes:

- ◆ Gives to each participant reputation proportional to the value of the project.
- ◆ Creates demand for the token. The demand for the token is necessary because this is fundamental for value, and token value is needed for this system to work. If there is no token value, the freelancer won't have anything valuable at stake, and will not have an initiative to act honestly.

*Please note that in this case, the only "loss" of money compared to a case where participants don't use our system is 0.5%. The freelancer gets 99% of the contract value in ether and 0.5% in ERT tokens, which he can sell if he prefers money over reputation. So, he is 0.5% short. That is his cost to use a system where he is protected and can be found by employers.*

*The employer gets what is basically 0.5% cash back, but in ERT tokens. This is a slight incentive for them to use this system. Having more employers on the system is beneficial for the freelancers. This benefit might or might not outweigh the fee.*

## OUTCOME 2: IF ONE PARTY IS UNHAPPY WITH THE EXECUTION, HE CAN OPEN A DISPUTE.

- ◆ This action automatically opens a queue for moderators for the case. Every moderator can stake at minimum 5% reputation tokens of the predefined stake value in the job listing, and no more than 33.4%. So, effectively the employer, freelancer, and pool of moderators all have the same total reputation at stake.

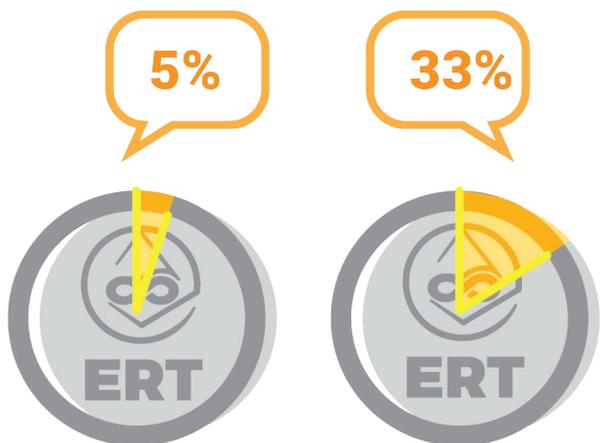
*Note: All moderators collectively need to have the stake amount at stake.*

Once enough moderators have entered the pool, so that their collectively staked ERT tokens are equal to that of the other parties, the moderation process starts.

*In the beginning, we will be participating in moderation as well, to ensure there are no cases with insufficient moderators. Also, 5% of the tokens that we leave for ourselves will be used for initiatives where needed, including getting moderators.*

◆ Moderator can be anyone who hold enough ERT tokens to cover the stake minimum. A stake minimum is necessary to prevent sybil attacks where someone creates lots of mods with just one ERT token each in order to dominate the moderator pool and decide in his favor. The listing creator decides how much reputation he wants at stake from the other side and the moderators pool.

The minimum moderation stake is 5% from that, so the higher the stake value, the more expensive the sybil attack. The max stake of 33.4% is necessary to ensure we have at least three moderators in every case. That is needed to make the decision more objective and less likely to be manipulated.



◆ 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. So, people with more rep can stake more, and naturally, can earn more since they have more at stake. This also incentivizes them to judge honestly. If they do, they gain more, and if they don't, they lose more.

*On top of that, this is another initiative for people to hold tokens, since they can use them to earn money by moderating.*



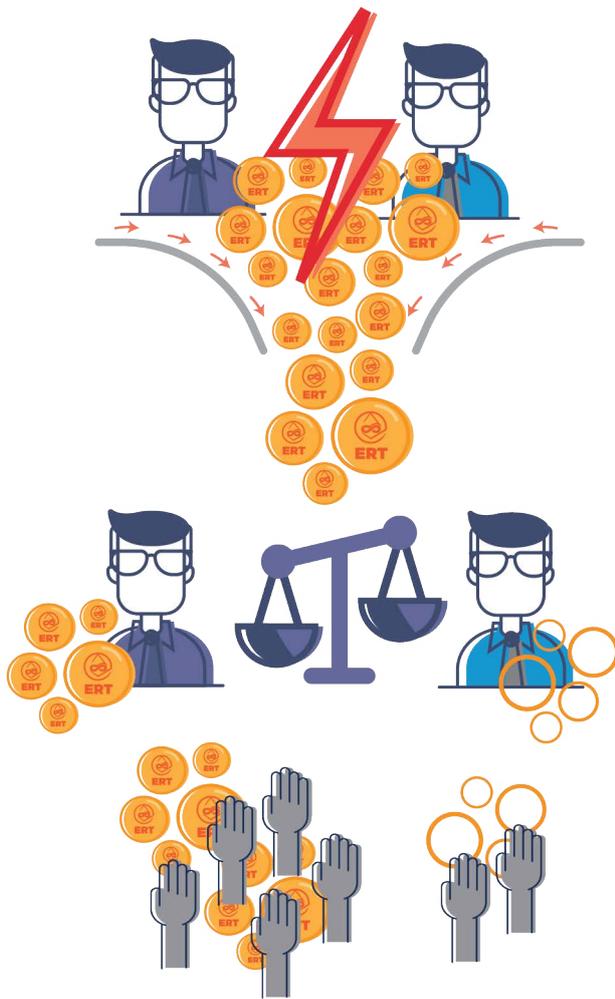
◆ When they decide the winning side in the dispute by simple majority (51%), the rep at stake of the losing side is distributed proportionally to the moderators based on **THEIR** rep at stake. **ONLY THE MODERATORS WHO VOTED WITH THE MAJORITY** (the winning decision) get rep tokens. The mods that voted with the minority lose their stake to the winning side of the dispute. 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.**

This is necessary to give moderators an incentive to act justly. The mods who failed to vote within the determined timeframe lose their rep at stake. This will eliminate non-active mods automatically since they will be losing their rep at stake each time until there is none left and they can't be selected for mods anymore.

◆ In case the moderator votes are at odds, only then the system looks at the tokens behind the votes to decide the majority. We can't simply force odd number of moderators, since some of them may fail to vote, and we still get an even number.

## SINCE IT GOT COMPLICATED, HERE IS A SUMMARY

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When the dispute is concluded:

- ◆ The winning side gets the contract value from escrow, his staked rep back, and the rep of the minority voted mods.
- ◆ The losing side loses only his staked rep if the freelancer and the staked rep AND the money in escrow if the employer.
- ◆ The majority vote mods get proportionally to their stakes the rep of the losing side.
- ◆ The minority vote mods lose their reputation at stake to the winning side.

(Optional)

In this case, there is no need to use 1% of the contract value to buy rep tokens on the free market and award the sides for successfully executed contract as in case 1. This 1% can be distributed proportionally to all token holders as a reward for keeping ERT tokens and thus supporting value for the token. Again, this is necessary for this system to work. This creates further demand for the token because this is a second way for token holders to earn. (The first one being a moderator and solving disputes.) So, the system supporters are rewarded each time the system is put to use for solving a dispute.

The disadvantage is that the winning side gets 1% less in favor of the system. However, this can be looked at as moderation fee, because this is the only thing the winning side pays, and he is getting some rep tokens from the minority-decided mods which might or might not outweigh the fee.

Another 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.

### OUTCOME 3: THEY ARE NO LONGER WILLING TO WORK TOGETHER

If there is a mutual agreement between employer and freelancer, they can close the contract at any time and everyone will get back whatever he staked without any fees. Or, just let it expire and it will do the same automatically. This ensures that it's impossible to have funds locked indefinitely in any of our contracts.

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## 4. EARNING MONEY AS A MODERATOR

You can more than double your staked rep tokens every time you participate in a winning decision. Since every side has the same amount of tokens at stake and you get proportionally the tokens of the losing side. If your staked tokens represent 10%, you get them back plus another 10% from the losing side. However, since this is distributed only among the moderators who voted with the majority, your percent actually increases.

### EXAMPLE:

The rep tokens needed at stake are 100. There are 10 moderators in the moderators pool, each participating with 10 tokens. (This is highly unlikely, but we are just keeping the math simple.) So, your tokens represent 10% of the pool. 70% of the moderators have voted for one of the sides, 30% for the other. You have voted with the majority (70%). Since only they get tokens, we now have 70 tokens among which to proportionally distribute the losing sides' tokens. Your 10 tokens now represent 14,28% of that. So you get 24.28 tokens back for your originally staked 10. That is a 142% profit.

If you happen to be on the losing side, you lose 100%. So, moderators have a strong initiative to judge honestly, but the gains more often than not outweigh the potential for a loss.

## 5. WE ARE PAVING THE WAY TO ICO 2.0



*Our ICO is different, because our investors are protected via the magic of smart contracts and crowd auditability. We give investors control of our spending, as it should be from the start. You have the power to terminate the project and get a refund.*

Have you ever asked yourself why you should **TRUST** ICO creators to handle your funds fairly and actually deliver on their promises, when the whole idea of crypto is to be **TRUSTLESS**? Since we now have the technology to replace **TRUST** with self-enforcing smart contracts, why are we still doing things the old way, based on promises?

We propose a way where you, the **INVESTOR**, control how and **IF** we spend money. The system we propose ensures that at any point in time you front 10% of your investment. Every token holder can initiate a voting process to terminate the project and get proportional refunds on the remaining funds. **HERE IS IT HOW IT WORKS:**

◆ Upon completing the ICO, the smart contract automatically distributes the tokens to you, and 10% of the collected funds to us. We use that money to start working. We update you on the progress of the project regularly via email, Reddit, Twitter, Slack and Telegram. You can follow development closely on Github.

◆ When we run out of the initial money, we send 0 ETH transactions with additional data to the smart contract, asking to start a voting process. It continues for one week.

◆ On all social media channels, we explain and SHOW what we have delivered so far and for what we will use the next increment of 10% funding.

◆ Based on that, you decide if you want to vote in favor of providing us the next 10% increment of funding or not. You do that by sending 0 ETH transaction to the smart contract with additional data telling the contract if you vote YES or NO. This will cost you the gas fee though.

◆ If at least 51% of the token holders have voted (so we have quorum, and a single big entity can't decide alone) AND of those who voted, 51% vote yes, we get the next 10% ether from the smart contract and continue working. We then repeat the whole process again whenever necessary. 51% is calculated based on tokens, not people. So, your vote has weight proportional to your

token holdings.

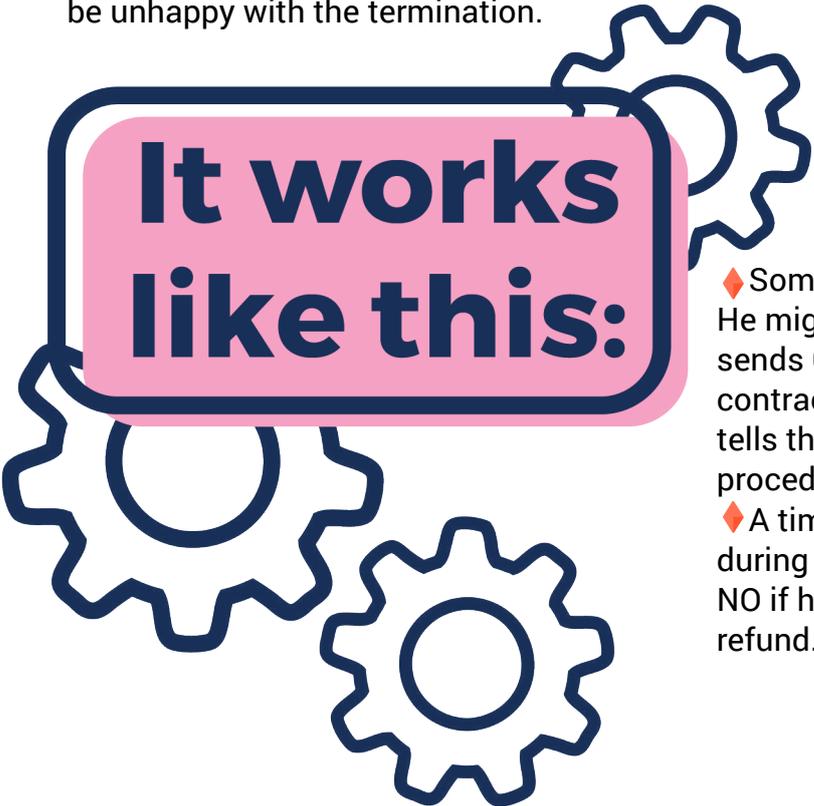
◆ If we have 51% voting quorum AND 51% of those vote no, we don't get any money at all. We continue working until the community is satisfied with what we have delivered so far and decides to release us more funds. We just re-initiate the process when we think we have made progress that will allow the community to change its vote.

### ◆ 3rd edge case!

People are busy; most don't have the time to keep up on a day-to-day basis with the dynamic world of crypto. Based on early attempts of the 1st SWARM project (it failed), we know that most people don't care enough or don't have the time to vote. So, there is a possible case where we can't get 51% quorum. If we don't have a safeguard implemented, that would mean the funds stay locked in the smart contract until we somehow find a way to get 51% of token holders to vote. Remember that with self-enforcing smart contracts, you have no one to bail you out, and having millions locked in a smart contract with no practical way to release them is very possible and probably will happen. So, we propose an automatic, self-adjusting solution to that, just the way it should be in crypto.

When the voting process is initiated, the smart contract waits one week to see if 51% quorum is reached. If it is, it proceeds as the two cases above. HOWEVER, if it is NOT, it drops the quorum needed quota by 10%, to 41%. It does that every week until quorum is achieved (be it at 31%, 21%, and so on). As soon as quorum is achieved, then it checks how the majority has voted. This ensures that we might not get the money, even if most people don't care to vote but the few who do, vote NO. This is a safeguard of the safeguard, so that we can't get around it to get the money by counting on low voting activity.

Every token holder can initiate a termination process. You send a 0 ETH transaction to the smart contract with data telling it you want to start a refund process. You cannot get an individual refund. If voted yes, the contract refunds all of the money left in it proportionally to all the token holders, and kills the project. Since the people that still count on the project and want it to continue will be refunded as well (if they are a minority) and this cannot be undone, we propose more serious thresholds for this to happen, in order to ensure that the consensus is significant and that few people will be unhappy with the termination.



**It works like this:**

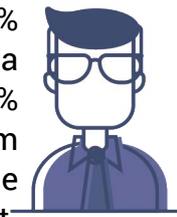
- ◆ Someone is unhappy with the project. He might hold as little as 1 token. He sends 0 ETH transaction to the smart contract with special additional data that tells the contract the termination procedure has been initiated.
- ◆ A time window of one month starts, during which everyone can vote YES or NO if he/she supports the termination and refund.

◇ If there is a quorum of 51% and 65% of those people have voted YES, the smart contract will now be sending refunds to everyone. So, if we have spend 10% and there is 90% left in the smart contract, you get 90% of your initial investment. That is if you keep all your tokens, of course. The refund happens by sending your tokens to the smart contract, and you get ether

refunded proportionally to those. The founder's tokens will be locked until there is 0 ETH in the smart contract. That means that we can't use them to fraudulently claim refunds with them BEFORE all the funds are released to us. And if they are, this means we have delivered the product and there is no need for a refund anymore.

#### EXAMPLE:

If your tokens represent 1% of all the tokens sold via the ICO, you will get 1% refunded from the remaining ether in the contract.



If we have spent 10% of all the ether already, you will effectively be getting 1% of the remaining 90%, which is 0.9%. The founder's tokens are not counted towards those, since they are not paid for and there is nothing to refund against them.

◇ If quorum is not reached OR it is reached but fewer than 65% have voted for a refund after one month, the termination process is canceled. Everyone can start it again at any time if there is no concurrent termination process already started. Technically, we can be in vote of distrust 100% of the time, month after month. We continue working regardless, and can still initiate incremented fund release processes concurrently.

## 6. ICO DYNAMIC CAP TO SPREAD THE TOKENS AS WIDELY AS POSSIBLE

Having optimal ICO is quite an act of balance nowadays. You want to spread the tokens as widely as possible since wide token distribution is critical for the success of every decentralized project. But at the same time, people, especially in crypto, tend not to like too invasive onboarding processes.

We propose a system that is, again, in the spirit of crypto: self-executing and trustless.



A lot of ICOs are hiding their addresses until shortly before the start to give a better chance to non-tech savvy people to enter; however, that gives opportunities for scammers to mislead users.

So, our ICO starts at a predefined block number, with a smart contract address announced well in advance.

The contribution amount in the first hour is capped to ether worth \$1,000 per unique sending address. Whales can generate a number of addresses, but they won't be able to include huge fees for each, since it will be economically unsustainable to do that for each increment of \$1,000. So, they are at odds with everyone else.

Then every next hour, the cap per unique address increases with \$1,000. This means \$2,000 for hour two, \$3,000 for hour three, and so on.

Each new hour, a previously used address can participate again with the new limit. So, you have multiple chances to get in. **EVERY HOUR!**



Of course, this won't eliminate whales, and we don't want to; they have the right to participate as everyone else. However, it will make it harder for them to participate with huge amounts and give multiple chances to the smaller investors.

We level the playing field as much as possible using blockchain technology and algorithms instead of invasive bureaucracy.

*While determined entities can still game this system and increase their chances, they will have to compete every hour with thousands of other regular investors.*

## 7. ROAD MAP



**OCT  
2017**

Starting Development  
of P2P Protocol with  
Kademlia style DHT

**NOV  
2017**

Starting development  
of Web Browser UI  
(p2p node client)

**DEC  
2017**

Alpha Release of  
MVP PoC

**FEB  
2018**

Ethereal Initial  
Coin Offering  
(ERT ICO)

**MAR  
2018**

Integrate Ethereum smart  
contracts as DAO platform for  
freelancers and business

**MAR  
2018**

Integrate IPFS to add another  
layer of data persistence  
and availability

**APR  
MAY  
2018**

Develop own decentralized  
system for moderating  
and curating records

**MAY  
2018**

Start building strong  
open source community  
contributions

**JUN  
2018**

Release production  
network and software

**Q3-Q4  
2018**

Iterate over continuous  
integration of new features  
and bug fixes

**Q3  
2018**

Start development of  
mobile platform



**Release application for iOS & Android**

**Integrate OpenAI in the search engine and the Ethernal Personal Assistant Bot**

**Marketing. Marketing. Marketing!**

*While we are open source and everyone can pick up the project, if needed, we intend to have dedicated staf to maintain and improve as/if needed, even after the money runs out. This is not a promise. We have economic initiatives to do that, since the rewards from the founder's tokens should be significant, so we have economic interest to see the system thrive!*



## **8.MARKETING ROAD MAP, BECAUSE EVEN THE BEST TECH IS DEAD IN THE WATER IF NOBODY KNOWS ABOUT IT**

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 chicken and egg problem. No freelancers would use a platform where there are no employers, and vice versa. Even if they do, and don't find it valuable shortly, they might never return. You need critical mass, and 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. 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.

We have planned a heavy marketing campaign from the start. This will include the following channels all at the same time:

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Stage one is targeting mostly people who are already engaged in both the crypto world and freelance work. This is a much smaller reach, but is heavily targeted. We go for quality over quantity here since this group is more likely to engage and experiment with new ways of doing things.

- ◆ Reddit ads on all subreddits for getting jobs for crypto. This is the smallest reach, but most targeted auditory.
- ◆ Facebook ads targeting only people in crypto-related and freelance-related Facebook groups at the same time. The people who are in both at the same time are not much, but it is very targeted as well.
- ◆ LinkedIn campaign targeting anyone who is involved in crypto and has skill set in demand on the network.
- ◆ AdWords ads to people searching for crypto- and freelance-related stuff.
- ◆ Airdrop of ERT to all ether addresses with non-insignificant balances. This will give them some reputation to start, and will also make them check what is this token about. This has a huge reach, but not targeted at all. However, everyone from those is involved in crypto, and might need job done at some point. So, when they do, they will be aware of our existence.
- ◆ Paid mentions to biggest influencers in crypto (e.g. Dollar Vigilante).
- ◆ PRs, paid or free, at all major crypto news sites.
- ◆ Bounties for users of the system who achieve first certain marks (i.e. jobs done, money spent, and so on), thus adding a gamification element and opportunities to make announcements.
- ◆ Measure performance. Adjust. Repeat.

## Stage 2



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 many of them, we might have just one shot. It's exponentially harder to make them re-visit a new service that they once tried and didn't like. So, only when we have a robust ecosystem of crypto-oriented freelancers and employers will we start marketing to the "mainstream" ones. **That would include:**

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- ◆ Google Adwords at Google Search. Targeting 1000s of long tail key phrases related to online freelance work and finding freelancers (for the employers). Having 1000s of long tail phrases allows for much lower cost per click (CPC) with the benefit of having very targeted traffic.
- ◆ Facebook ads optimized for high click through rates (CTR), so that the CPC gets lower and lower with time. This is how Facebook ads work. The higher CTR you have, the lower the CPC becomes. We will target fans of relevant freelance pages.

- ◆ LinkedIn, but this time, it is not limited to crypto freelancers, but freelance work in general.
- ◆ Mainstream media channels related to working online.
- ◆ Professionally made YouTube video ads.
- ◆ Production of potentially viral videos.
- ◆ Measure performance. Adjust. Repeat.

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We will be trying new marketing opportunities as well and adjust as needed.

## 9. TOKEN DISTRIBUTION AND HARD CAP

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**THE PRICE OF 1 ERT IS 0.001 ETH.**

That means that 1 ether gives you 1000 ERT tokens.

**HARD CAP IS \$30M WORTH OF ETHER.**

It will be set in ether using the price at the time of the deployment of the ICO 2.0 smart contract.

- ◆ 75% 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 founders. They will be locked in the ICO smart contract and will be released to the founders only when there is 0 ether left in it. Since 90% of the crowdfunded ether is locked in the same contract and can be released to us in 10% increments only after voting of 51% of the token holders this would mean that we have delivered the project OR we have failed and the people have initiated refund process and got back their funds.

In the first case, the tokens will be our economic initiative to keep supporting the project since we will have the same interest as every other token holder.

In the second case, when refund has been initiated, the tokens are useless. It is important though that they are released to us only after there is 0 ether in the contract, because otherwise we can use them to claim refund and that way get 20% of the funds.

We will be able to use those tokens for voting though.



◆ 5% Of the tokens will be kept for bounties and economic initiatives where needed. For example we might be giving tokens as rewards to users of the system that first reach certain milestone. Adding gamification element that way.

If there are not enough moderators at the beginning we can use those tokens to add extra initiative.

Basically, they will be used to “guide” the system until it’s able to “walk” on it’s own.

There will be permanent bounties for finding critical bugs in 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.

1000 ERT tokens will be created for every 1 ether invested. One month after the start of the ICO (or if the hard cap is reached, whichever comes first) there will

be 1000 ERT tokens for every 1 ether invested, on top of that 20% will be created for the founders (non transferable) and 5% for bounties (transferable) so that the total adds-up to 100%.

**New tokens will NOT be generated EVER again.**



## FAQs

### WHAT IS THE PURPOSE OF THE ERT TOKEN?

Short answer: Tokenized reputation.

Longer one: It's a token that has actual utility, outside of being used as payment method needlessly replacing ether.

Actually, all payments in the network are done with ether. The token represents reputation, which has monetary value since the token is traded on the free market. It's used for staking, aligning initiatives, moderating, taking job offers and just holding to get proportionally some of the fees the system collects.

## WHAT IS THE UTILITY OF THE ERT TOKEN?

It depends on what role you have in the network.

For the freelancer, the more Ethearnal Reputational Tokens he has, the more contracts he is likely to land. 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.

For the employer, he needs them to be able to hire people since he needs to stake the same amount the freelancer does.

For the moderator, he needs them to be able to moderate, since he stakes proportionally as well. By moderating, he earns more tokens, which he can sell if he chooses so. So, he needs them in order to make money via moderation.

For the token holder, other than the expected appreciation due to the few demand vectors we've implemented, they effectively give them revenue share of all system profit proportional to their tokens. He can also use them to vote if we should get more money released from the smart ICO contracts or claim a refund.

## WHO WILL BUY THE TOKENS?

- Freelancers
- Employers
- People who want to make extra income via moderating
- People who believe in our solution and believe the token will appreciate due to its real utility
- People who would like to get a percentage of the profits of this project that has the potential to disrupt a \$1T+ industry
- Pure speculators looking to make a quick flip. That is unavoidable.

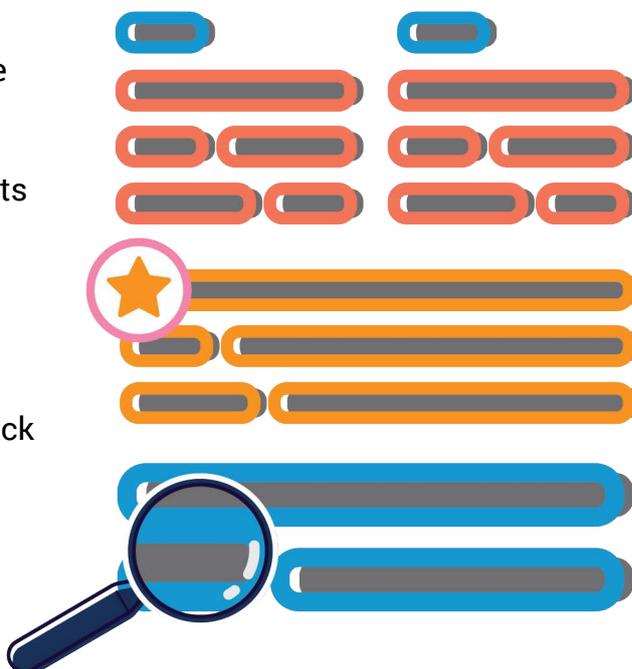
## HOW DOES ETHEARNAL MAKE MONEY?

Ethearnal, the company, doesn't. It's being paid via this ICO to deliver a project, and once it does, it is not expected to make more money from users. The network has a 0% to 1% fee and that goes back to the system to support the proper initiatives. However, we, as founders, have awarded ourselves 25% of the tokens. 5% of those will go to bounties and awards for freelancers in the system. The remaining 20% we keep and will profit from, like any other token holder. This aligns our economic initiative with the success of the project.

## HOW FREELANCERS WILL USE THE MARKET:

They have three options:

1. Just list their skillset and hourly rate, and wait for people to find/hire them.
2. Create gig listings with specific tasks they would do for predefined amounts of money, and wait for people to orders those gigs.
3. Actively search/browse employer's offers and apply for them. In later releases they will have the option to be notified when an offer meeting their criteria is published.



## HOW WILL EMPLOYERS USE THE MARKET?

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Two ways:

1. Search/browse available talent and gigs.
2. Publish their own offers and wait for someone to apply for them.

## WHAT ARE THE TAXES FOR SELLING/BUYING ON ETHEARNAL?

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1. Upon successful completion of a job (no arbitrage needed) 1% is deducted from the value of the contract. However, this is used to buy ERT tokens on the free market, which are then split between both parties. So, freelancers and employers get back 0.5% in ERT tokens. This means that the effective fee for the freelancer is 0.5%, and the employer gets 0.5% back in tokens, which is a slight initiative for them to use this system over others. This may or may not bring more work for the freelancer, and thus offset the already small fee.
2. When arbitrage is needed, 1% is deducted before releasing the money to the winning side. This is shared between token holders in ether directly. However, the winner of the dispute gets the rep tokens of the minority mods that voted against him. This might or might not offset the 1% fee.

## HOW I CAN START WORKING AS A MODERATOR?

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You just need to buy enough ERT tokens to be able to meet the minimum stake requirement for a dispute in your competence. Every creator of an offer can choose his own stake requirement. You need to stake 5% to 33.4% of that in ERT.

## HOW MUCH WILL I MAKE AS A MODERATOR?

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You will more than double your staked ERT tokens for every dispute you resolve correctly, then you can sell them immediately and just leave enough to stake on other cases.



## WHAT IF THE OUTCOME OF A DISPUTE CAN'T BE VOTED ON WITH A SIMPLE YES OR NO?

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The smart contract that both sides enter into can be made with milestones with predefined amounts for each milestone. In those cases, except the binary yes or no, moderators will be voting which milestone is achieved. The dispute solution will affect the funds until this milestone. The rest will be refunded back to the employer.

## CAN I USE JUST ETHER AT ETHEARNAL?

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Yes, but only for offers that don't require any reputation staked. It's up to the offer creator to set that value so, if there are any that choose to set 0, you can. Also, the moderators won't have economic initiatives to get involved in a potential dispute, so you are hoping to have enough moderators willing to work for free.

### CAN MODERATORS BE BRIBED OR PERSUADED TO BE ON MY SIDE?

Yes, but you will have to convince the majority to do so. If they just vote honestly they will at least double their rep tokens. So, they will probably demand more than that from you as a bribe, so they have initiative to act maliciously. So, you have to bribe 51% of the mods with at least double the rep at stake, which is at least 102%. So, it's cheaper for you to just lose your ERT tokens staked. However, if you are an employer you have ether in escrow as well, so bribing might still be viable for you. That can be countered by freelancers, by requiring much higher amount of ERT at stake in the first place.

### DOES IT MEAN THAT IF I USE ETHEREAL, I DON'T HAVE TO PAY FEES?

If you are employer, you don't really pay any taxes. You actually get 0.5% "cash back" in one of the possible cases as ERT tokens. If you are a freelancer, you get 0.5% to 1% deducted from your payment.

### CAN YOU SEE ON THE PLATFORM IF A FREELANCER BOUGHT OR EARNED HIS REPUTATION TOKENS?

It can be seen on the blockchain if the rep tokens came from Ethernal smart contracts or just funded directly. Even if we don't implement it, 3rd party services can offer it. We do plan to implement it though.

### ARE THE TOKENS EARNED AS FREELANCERS AND THE ONES EARNED AS EMPLOYERS THE SAME? IF NOT, ARE THEY INTERCHANGEABLE?

Yes, it's the very same, fungible token.

### CAN I USE MY REP TOKENS SOMEWHERE ELSE?

Not really, but you can cash them out at an exchange at any time.

### WHAT MAKES YOU THINK YOU CAN EXECUTE THIS PROJECT?

Between the two founders, we have 26 years of experience in various online businesses and have been on both sides of the freelancing model. We've been into bitcoin since 2012, and into Ethereum since its ICO.

We are building this because this is what we would like to use. Since it's finally possible to be done, we believe we are in the right position to collect the pieces.





Ethereal  
No Limits.  
Just Business.

**WHITEPAPER**

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