

PLAY WIN VIEW EARN

Whitepaper Jan 2022





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THE VISION

PLAY	WIN
VIEW	EARN

The core vision of esportsref.com

- 1. To allow esports teams and individual casual gamers (**competitors**) the opportunity to compete with one another FAIRLY on ANY video game, for either an agreed stake in the GNOSIS Chain xDAI stable-coin cryptocurrency, ESR utility tokens, free KUDOS tokens, or to alternatively compete against opposition players in "skill-based" gaming, to win an ESR NFT "token prize".
- 2. To offer casual esports fans (**viewers**) the opportunity to earn crypto (both XDai and ESR tokens), by acting as an impartial, unbiased viewer (**referee**) (also referred to as a judge or adjudicator in some regions) by watching live gaming streams of the competing players on well-known game stream formats including Twitch.tv, Facebook Gaming and YouTube Gaming, and deciding on a winner to whom crypto or NFT token prizes will be released.
- 3. To utilize ESR tokens in multiple ways, including ESR token "buy-backs" for yield earnings, as well as eventually being able to exchange for exclusive e-sports merchandise/subscriptions/game loot, access passes, and to trade on both centralised and decentralised exchanges, or sell on NFT platforms such as https://epor.io/



THE TARGET MARKET

"The casual gaming and e-sports market is on track to surpass \$200 billion by 2022"

- Estimated 2.69 billion active gamers worldwide
- 58% of Americans play video games daily
- 72% of gamers are 18 or older
- The average gamer is 34 years old (https://cutt.ly/kxtMF1U)
- Cryptocurrency owners are predominantly male, with an average age of 34 (https://cutt.ly/DxtMmWO)
- In 2019 In there were 245 million casual gaming 'viewers' watching other people play games.
- Casual gaming viewership is expected to rise to 351 million people by 2023
- E-sports enthusiast viewership, combined with casual gaming viewership will exceed 646 million people by 2023
- In 2015, awareness in the phrase "e-sports" was projected at 800,000 globally. This has risen rapidly to 1.57 billion people in 2021
- Audiences watched over 7.46 billion hours of content across all live-streaming gaming platforms in Q3 2020
- The "League of Legends" European Championship 2020 has registered 28m hours watched



THE REAL-WORLD PROBLEM

"People love to compete"

The online poker industry clearly illustrates the popularity of competing against others for a tangible stake. This is achieved very successfully for online poker in a centralized environment (outside of blockchain) based upon the fact that poker has a set of strict, clearly defined rules and the centralized poker game provider has carefully coded these rules into the game to allow the poker game hosting platform to issue rewards to players automatically, without the need for a human third party to monitor individual games or tournaments.

In the e-sports and casual video gaming world, competing for a tangible stake is a far more complex challenge. Hosted e-sports competitions for substantial prizes at large venues are managed by large teams, with adjudicators (referees) on hand to ensure the matches are played fairly, however this type of setup is typically limited to a single pre-determined video game, where the rules of engagement have been very clearly defined by the competition organizers before the competition commences.

On a smaller scale, for simple "one vs. one" games played at home, this type of competing for a tangible stake or prize has thus far been impossible to implement on a large scale. Every single video game has a different set of rules, and whilst the game itself has been coded to successfully determine a "winner" between competing players, this "result" information is not easily relayed to a third-party service such as a betting company, to allow the winning competitor to be awarded a cash/crypto/token prize by the third-party service. Not only this, but it is an unfortunate fact that many gamers will look for ways to cheat or manipulate the game to be awarded a win. Whilst this form of cheating is usually glaringly obvious to a real **human** gamer or a casual e-sports viewer, the Artificial Intelligence within the game code is often unable to identify this.



THE REGULATIONS

"Do global regulations prevent e-sports betting?"

We recognize and appreciate that some gamers in some territories around the world would not be able to participate in "direct" competition with other players for cryptocurrency. This may be due to local laws, maybe be subject to regional gaming licences, or may in some instances even be limited because of religious reasons.

In this instance, players who still wish to compete and utilize the DApp platform, can take an alternative approach.

Rather than "competing directly for crypto", players can instead participate in a mutually-agreed "skill-based" game to win a special **ESR NFT token prize**. There is a extremely important distinction in may global territories between gambling ("betting") and partaking in skill-based gaming to win prizes.

The esportsref solution will offer users the option to pay a "game entry fee" to play for an **the NFT token prize**. Both players pay the entry fee to esportsref to compete for the prize, and esportsref will accept both xDai coin or ESR tokens as the entry fee.

In this special scenario, the winner of the game will receive a special, automatically-minted ERC721-compliant NFT token. Each HRC721 ESR NFT prize token is completely unique (**non-fungible**) and can only be generated by the esporstref "factory" NFT token generator smart contract. The token will have specific metadata written to it, including the total "game entry fee" value that players agreed upon.



THE REGULATIONS

"Do global regulations prevent e-sports betting?"

This ESR NFT token is for the winner of the "skill-based game" to keep, and they can do a number of things with it.

- 1. They can choose to keep the NFT token as a type of trophy to show in their esportsref "trophy cabinet"
- 2. They can chose to "sell" their NFT token to esportsref at any point If they chose to do this, esportsref will guarantee to purchase the NFT prize token from the seller at the value of the encoded "game entry fee" value, minus a small transaction fee.
- 3. They can trade the token with other people or put the NFT for sale on NFT websites such as https://epor.io/.
- 4. They can exchange the token for other exclusive prizes, goods, merchandise, early access game passes, etc
- 5. They can hold onto the NFT prize token, and accrue ESR "airdrop" bonus tokens for every 30-day period the NFT prize token is held in the same wallet. For some they may be considered a form of monetary interest, so If this goes against an individuals religious beliefs, they can choose to opt out of the "airdrop bonus" before the NFT is minted

As well as regulatory challenges, there are of course restrictions on competing due to age, therefore esportsref players and referees would be required to provide identification to prove their age.

Specific regulatory project challenges will be discussed in more detail in the coming weeks.



THE SOLUTION





THE SOLUTION

To compete fairly, you need a referee

A referee, also known as a judge, adjudicator, arbitrator or umpire, can act as an impartial, unbiased third-party to ensure competing players are abiding by an agreed set of rules, and are able to declare a competition winner.

Up until this point, there was no reasonable way to replicate the offering of a human referee in a global, wide-spread e-sports gaming environment, that would not only be capable of understanding the rules of engagement for all types of games (human intelligence), but also to ensure that competing players are not trying to manipulate the result. It is fair to state that an impartial, unbiased mediator can prove to be an extremely valuable asset.

We spent a lot of time thinking about how it would be possible to apply a referee to games played online for a stake or for a prize, and the only way to do this FAIRLY would be to apply a human referee to each and every game. From the perspective of the competing players, they would want to be absolutely sure that the referee chosen to adjudicate their games would be totally **impartial**, and completely **unbiased**. The only way to do this fairly would be to **randomly** select a referee from a pool of candidate referees. This way, the competing players have zero influence of the selected referee.

In essence, the core solution we offer, is to provide a **provably random**, human referee to watch a live stream of a game between two or more competing players, and to ultimately confirm the winner. The referee is then able to release the game stake locked within the SMART CONTRACT to the winning player or team.



THE OPPORTUNITY

Earn crypto doing something you love!

For many years, large advertising corporations have offered people incentives to view and interact with paid advertisements. Unfortunately this can prove to be an incredibly tedious way to earn an extra income. We wanted to allow people to earn crypto by doing something that they already enjoy doing, and would normally have no issue doing for free - That is to watch other people play e-sports.

Esports and casual game viewership is an extremely fast growing market. The next generation of people will enjoy **watching e-sports** and gaming competitions in the same way that people love to watch people compete in real-world sports.

The inclusion of an e-sports **referee** also introduces the additional social element, where referees and competing players can be social with each other whilst competing, should they choose to.

Upon initial launch of the platform, **all esportsref referees** will earn a fee of **3% of the total crypto** staked in a game, either in HPB crypto or ESR tokens.



THE TOKEN



Total supply: 100,000,000

Token type: GNOSIS ERC20 Utility Token

Token Contract: 0xd3226b12e6188133b19ac0419f34b0ed5b10f069

Token pre-sale value on Sushiswap: 1 ESR tokens = 0.011 xDai



THE TOKEN

The ESR token is an Ethereum ERC20-compliant utility token minted for the GNOSIS blockchain. All esportsref DApp users are required to have a **non-zero ESR token balance** in order to use the service.

For those who do not wish to compete directly for ESR tokens or xDai coin, they can also choose to compete for ESR NFT tokens, or simply wager free KUDOS tokens for fun.

As an incentive to compete for ESR tokens instead of xDai coin, the DApp game fee is reduced.

If you choose to **compete directly for xDai**, the total fee is **5% of the total game stake** (including the referee earnings of 2.5%)

If you instead choose to **compete directly for ESR** utility tokens, the total fee is **3% of the total game stake** (including the referee earnings of 2.5%) - This option also includes Developer "Token Burn" to further reduce ESR token supply.

(Total stake % may be subject to change in final launch DApp)

ESR tokens can be used for trading on exchanges and Decentralised Exchanges (DEX). As well as xDai, You will also eventually be able to trade ESR for other coins and tokens, such as BTC/ETH/USDT.



THE ESR NFT INITIATIVE

We **guarantee** to buy-back any ESR NFT prize token from players whenever they wish to sell them. There is no time limit. The buy-back process is automatic and immediate, and can be executed at any time. EsportsRef will purchase the NFT prize token back from the NFT owner, minus a small transaction fee. The fee is as follows:

- For "entry fees" originally made in **xDai**, the transaction fee will be **5%*** of the value written to the NFT token.
- For "game entry fees" made in **ESR**, the transaction fee will be **3%*** of the value written to the NFT token.

(Transaction fee % may be subject to change in final launch DApp)

For ESR NFT prize token holders, where the NFT was generated with the initial "game entry fee" in ESR tokens, they also have a unique (optional) opportunity to earn additional monthly ESR "airdrop" tokens, just by holding the NFT prize token in their wallet.

The first 90-day period is known as the "hold-time" where ESR airdrop tokens are not accrued. After this point, the NFT prize token holders (specifically where the NFT was generated with ESR) will receive 0.5% of the value of "game entry fee", as a monthly airdrop to the same wallet.

Example - Two players pay a 500 ESR token "game entry fee" to compete in a skill-based competition for a special ESR NFT token prize"

- The value of 1000 ESR is written to the NFT token when generated.
- Player 1 wins, and chooses to hold the NFT token in their wallet.
- After 90 days, player 1 receives 0.5% (50 ESR tokens) into his/her wallet, and will continue to receive this number of tokens until he/she sells the NFT back to esportsref or trades/Exchanges the NFT. (Maximum airdrop NFT incentive for 24 months.)



THE BUY-BACK INITIATIVE

We are able to offer the NFT buy-back <u>guarantee</u> to all users because xDai crypto and ESR token funds used as the "game entry fee" in this specific instance are sent to a "buy-back" smart contract reserved exclusively for buy-back. Funding will always be available for buy-back at the same value of the "game value fee" written to the NFT, minus the transaction fee.

All NFT tokens eventually "bought back" by esportsref will be immediately burned* (*The processing burning is where the token is sent to an address with an 0x0 "null" address owner)

Esportsref will be able to fund bonus token allocation in multiple ways:

- 1. An initial fund of 30m (30,000,000) ESR tokens will be reserved for ESR token airdrops for NFT token holders.
- 2. Earnings from "directly-competing" players for ESR tokens, will be subject to a game fee. This fee can be used to top-up the bonus fund if necessary.
- 3. Earnings from directly competing players in HPB crypto can be exchanged on a CEX/DEX to "top up" additional ESR tokens where necessary
- 4. The esportsref team have also allocated a "flex-wallet" ESR fund which can also be used as a reserve.

Please note, that ESR NFT token prize holders can also sell their token to others, however the ESR token "airdrop" associated with the NFT is limited to a maximum of 24 months. NFT tokens held after this period from when the token was first minted, will not be subject to ESR token "airdrops".



THE AIRDROP

Even though the value of crypto and tokens goes up and down, the level of monetary "risk" for competing players will remain relatively constant in terms of true \$ value, with the factoring of economic inflation/deflation.

We expect the <u>average</u> "stake" of competing players to be anywhere between \$5 and \$50 of crypto per game.

If ESR tokens were valued at \$0.10 per token, this would equate to 50-500 tokens per game stake

If ESR tokens were valued at \$1.00 per token, this would equate to 5-50 tokens per game stake

The greater the value of ESR, the fewer the amount of ESR tokens will be staked, therefore as ESR gains popularity and the value of the token increases, the actual "game entry fee" written to new ESR token prizes will actually get smaller, therefore the number of ESR tokens "airdropped" will get smaller, even though the actual monetary value of those tokens will remain constant.

0.10 per token - 1000 ESR tokens staked - 0.5% each month = 5 ESR tokens "airdropped") 1.00 per token - 100 ESR tokens staked - 0.5% each month = 0.5 ESR tokens "airdropped")

Individual ESR NFT token prizes can potentially prove to more valuable when the value of ESR first starts out, (Early investors in the DApp) because the likelihood is that an increased number of ESR tokens would be staked (owing to the low token value) and therefore the actual number of "airdropped" tokens would be greater.



THE BURNING

ESR ERC20 tokens will be burned at a rate of 0.05%* of ESR received dev fees (excludes referee earnings which are not affected) for each game where players compete **directly** for ESR tokens. This will slowly reduces token scarcity. As the token value increases, the number of tokens staked would typically reduce, and therefore the number of ESR tokens burnt would reduce.

Example 1 - Two players compete directly for ESR tokens -

They each stake 500 ESR tokens (total stake 1000 ESR tokens)

- Player A wins Receives 97% (970 ESR tokens)
- Referee receives 25 ESR tokens
- Devs receive 5 ESR tokens

0.05% of dev token fee automatically burned - 0.0025 ESR tokens burned

Example 2 - Two players compete directly for ESR tokens -

They each stake 10,000 ESR tokens (total stake 20,000 ESR tokens)

- Player A wins Receives 97% (19,400 ESR tokens)
- Referee receives 500 ESR tokens
- Devs receive 100 ESR tokens

0.05% of dev token fee automatically burned - 0.05 ESR tokens burned





THE ESR TOKEN ALLOCATION

- 30m (30,000,000) reserved for the ESR "buy-back" scheme and yield earnings ("monthly NFT airdrops")
- 20m (20,000,000) allocated to the token pre-sale for investors (any remaining tokens in the pre-sale contract will be burned on 21stApril) Tokens now allocated to pre-sale investors from previous HPB chain
- **15m** (15,000,000) allocated to "team full-flex wallet" used to assign to any element of the project as and when required. For example, additional liquidity pooling, "buy-back", "factory" master account, token initiatives, listing fees. The allocation of this pool of tokens will be influenced by the community.
- 10m (10,000,000) immediately allocated to token DEX/CEX liquidity pooling for trading
- **10m** (10,000,000)allocated to a smaller alpha DApp launch token sale for use of the DApp (all ESR users will require a non-zero ESR balance—token purchase) rate TBC
- **5m** (5,000,000) allocated for marketing, promotion, advertising, social media influencers, media interests. Use of this fund will be influenced by the Telegram community.
- 5m (5,000,000) allocated to dev personal fund. All tokens will be fully time-locked for 3 months
- **1.2m** (1,200,000) reserved for current ESR "whale giveaway", including main prize, runner up prizes and associated giveaways.
- **1m** (1,000,000) reserved for smart contract security auditing, hackathons, community council
- **~0.5m** (~500,000) reserved for various miscellaneous community incentives giveaways, community rewards, etc.

Note that 2.3m of the 100m ESR tokens were given away in promos and various giveaways prior to the pre-sale



THE TOKEN FLOW

- To use the esportsref DApp service, all players and referees will require a non-zero ESR balance
- Users must purchase ESR from either a CEX or DEX, or directly from the website during the alpha sale,
 unless ESR tokens already owned prior to launch
- Users will require ESR tokens to purchase any esportsref e-sports related merchandise
- Some regions or players with certain religious beliefs will only be able to use the esportsref service to compete for an ESR NFT token prize in a "skill-based" game.
- Esportsref will generate profits in the form of xDai and ESR tokens depending on user preference.
- When players "hold" onto ESR NFT token prizes, they can earn bonus ESR token "airdrops"
- As overall ESR circulating supply reduces, the price should increase.
- The guaranteed NFT token "buy-back" will be paid for by the buy-back fund as well as revenue generated from the game entry fees and transactional fees.
- ESR tokens flow into the DApp through fees, and out of the DApp through airdrops.

This ever-revolving process should create a self-stabilizing ESR token economy.



THE COMPETITION



Token: CHZ

MCAP: \$3,000,000,000 USD

Digital token assets associated with clubs



Token: ENJ

MCAP: \$2,500,000,000 USD

Virtual goods and digital assets



Token: MANA

MCAP: \$1,700,000,000 USD

Purchase, build and monetize virtual reality assets



Token: **FLOW**

MCAP: \$1,200,000,000 USD

Crypto-infused video games



Token: **SAND**

MCAP: \$450,000,000 USD

A Virtual world where players can build, own, and

monetize their gaming experiences



Token: **DAWN**

MCAP: \$200,000,000 USD

Competitive e-sports platform where you earn rewards depending on your skill in games. Limited number of games available. (closest competitor to esportsref)



Token: **ESR**

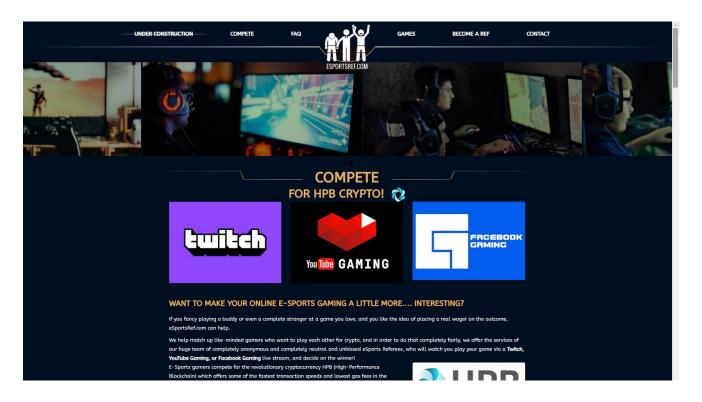
MCAP: \$1,100,000 USD

Compete for crypto on ANY game, on ANY device with ANYONE. Live stream viewers earn crypto too. Earn rewards by holding ESR NFT prize tokens.



THE WEBSITE

The esportsref.com website is currently under development. Initially development was limited in scope and pace due to limited budget constraints, however a successful ESR token pre-sale should ensure the website can develop at an accelerated pace, and be delivered to the professional level that will be expected by global users.



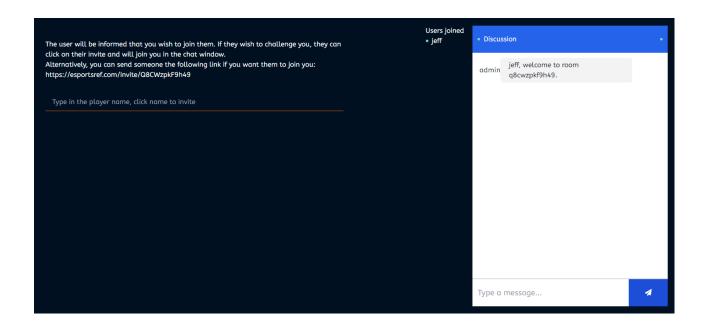
Note: Image depicts early conceptual design and may not necessarily be fully representative of the final launch site.



THE DAPP

Esportsref will be represented as a Decentralised Application (DApp) that generates "smart contracts" for players to compete fairly. The platform will allows both players and referees an opportunity to register with the program, and will allow like-minded players a way of being "matched" to allow them to compete.

The chatbot - Players can discuss the terms of engagement and agree a stake before committing to depositing their ESR or xDai into the smart contract





THE DAPP

The referee selector - Referees with status set to "online and available" will be eligible for selection for a match-up. Referees can opt to referee specific games they enjoy, or they can offer to act as referee for any game type. The "factory" smart contract then generates a unique smart contract for the competing players, at which point, the xDai random number generator (RANDAO) is used to randomly select a referee from a "pool" of available (online) referees. The referee will then be added to the chatbot where they will be made aware of the agreement between the two competing players.

parties have agreed to begin the game, ultimate control of the smart contract is handed over to the referee.

Only the referee (or in some rare cases esportsref admins when a result "dispute" is requested) can determine a winner and release the funds from the smart contract into the winners account.

The smart contract - As soon as all

```
ContractDefinition TokenSale ₱ 0 reference(s) ∧ ∨
 1 V/ ESR Factory Contract - Used to generate smart contracts requested from
      / competing players. Players are allowed to compete directly for HPB
    // They can also compete directly for ESR tokens, and finally they
     // can compete for ESR tokens by using HPB as an entry fee
    // last updated 09.04.21
 9 pragma solidity ^0.5.6;
      // The factory contract for ESR can be called to generate a new smart contract for players to compete
     // Players can either compete directly for HPB or alternatively can compete for ESR tokens
      // The call for the new HPB contract is straightforward
    // The call for the new ESR contract involves token transfer
20 // Imported Token Contract functions
        function balanceOf(address) public pure returns (uint256) {}
        function transfer(address, uint) public {}
        function transferFrom(address, address, uint) public {}
        function allowance(address, address) public pure returns (uint256) {}
```

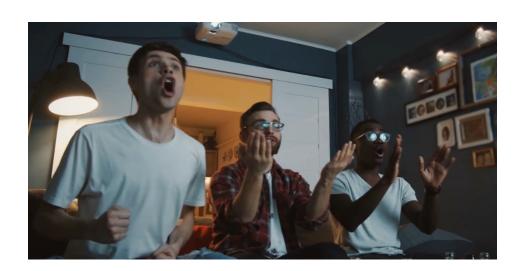


THE REFEREE INCENTIVE

The **referee** will earn both xDai and ESR tokens from doing something they would enjoy doing anyway.

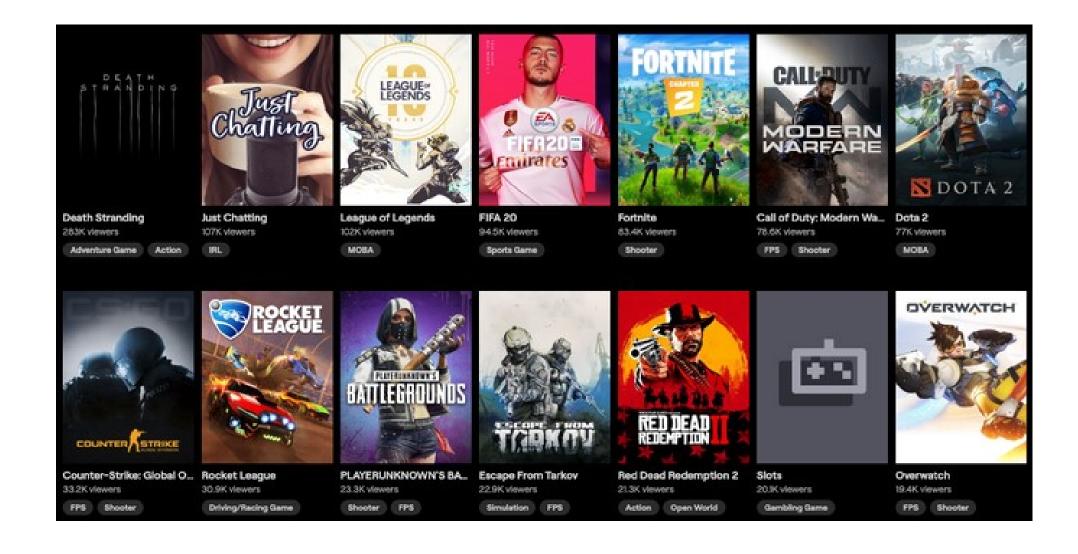
We believe it will be fairly easy to attract the right demographic target audience to wish to register as an esportsref to earn crypto by watching others play.

One of our first initiatives prior to full DApp launch, will be to discuss with the investors and Gnosis community on various ways to attract a large pool of referee. This may be in the form of free ESR tokens from a registration "token faucet", or potentially prizes for upvoted referees, or increased referee percentage earnings for the first few months, etc.





THE GAMES





THE GAMES

Compete on ANY game, on ANY device

One of the significant benefits of the Esportsref.com platform is that players can potentially compete on ANY game they want, providing they can **live-stream** the game on a platform available to a referee to view. Unlike large-scale, organized e-sports tournaments, often restricted to a single game type, esportsref will allow you to play any game, new or old, and as long as you can stream it, we will match you with a willing referee looking to earn crypto.





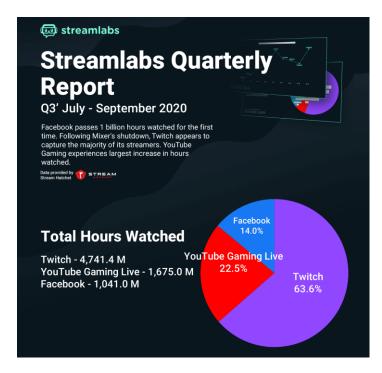




THE LIVE STREAMS

"Incredible global viewership"

Esportsref referees will utilize the existing, fully-matured live-stream e-sports platforms to watch games (as millions already do) to determine game winners. The three primary live-stream solutions we would look to utilize are Twitch, Facebook Gaming and YouTube Gaming.







THE TECHNOLOGY



A "smart contract" is essentially a contract between two or more parties, that lives on a cryptographic "blockchain", where the code of the contract itself determines how the contract issues funds stored within the contract.

A basic example of this is to have three parties, whereby Party A and Party B both deposit an agreed number of crypto coins into a smart contract, and also agree that Party C should be the only person with the authority to release those crypto coins to either party A or party B.

At a high level, this is exactly what the smart contracts of **esportsref** are doing. Two or more competing players are depositing their cryptocurrency into a smart contract, and an impartial, unbiased third-party (a referee) is then **randomly** selected to determine which of the players wins, and therefore decides which party the smart contract should release the funds to. The smart contracts are tamper-proof. They are cryptographically stored on the HPB blockchain, and therefore once both parties have agreed on the terms of engagement and deposited their crypto coins, only the referee (or in extremely rare cases, a supervisory arbitrator) can select a winner.



THE BLOCKCHAIN PARTNER



There are many blockchain solutions on the market, capable of hosting smart contracts that could be used in this type of gaming environment, however we have chosen **GNOSIS** as our preferred blockchain, for three distinct reasons:

- 1. **Speed** The GNOSIS blockchain offers significant speed advantages over many competing blockchains. We want to ensure that esportsref can scale to its userbase, so we need to be sure the underlying blockchain is capable of managing demand.
- 2. Fees Whenever you generate a new smart contract, or write to that smart contract, or transfer funds to and from a smart contract, a "gas fee" applies. The gas fee covers the uptime of running decentralized server nodes. Once again, when comparing GNOSIS to other well-known blockchains, we needed to ensure those fees are kept to an absolute minimum. So for example, where the average gas fee on Ethereum might be \$30 per transaction, the same transactional gas fee on GNOSIS would be less than \$0.001
- **3. Randomness** It is fundamental to esportsref that all automatically-appointed referees are selected RANDOMLY. If there was any way to influence or pre-determine the selection of a referee before a game, it simply would not be fair to the players. This is mission-critical. It has been proven that the only way to generate provably-fair random numbers on a blockchain is to use hardware. GNOSIS uses the xDai RANDAO solution to generate randomness.



THE RANDOM NUMBER GENERATOR





THE ROADMAP

IMMEDIATE - Gather a team of trusted Community senior advisors, and target CEX for exchange listing.

Q1 2022 - Alpha testing of the DApp, initial marketing drive, begin recruiting esportsref referees.

Q2 2022 - Esportsref.com full website and live DApp launch. A continued drive to forge partnerships with established esports companies, communities, ambassadors.

Q4 2022 - Exchange listing drive to push ESR token to major "Tier 1" CEX exchanges.



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